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Notes on the lectures

of Dr. Benjamin Rush.

vol. 1

Thus when a top with different colours painted on it is twirled round but one is excited in the mind — Two thoughts excited in the mind at once — One is produced different from either 2 Medicines exhibited of the same force at the same time produce an impression a compound of both

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Laws of Sensation.—

Impressions are void of sensation at times, many viscera when diseased are void of impressions. The parts to wh. stimuli are applied do not produce a sensation in that part, as a stone in the Kidney will produce sickness at the Stomach.

1st All sensations are proportioned in a certain degree to the force of impression

2d The force of the impression excited produces a sensation proportioned to the duration.—

3d Only one sensation can be excited at once when ~~impressions~~ sensations are unequal the most powerful reigns

4th A number of impressions of equal force being given the sensation produced is a compound of them all, just as a number of tones produce ~~and~~ harmony — Top# — 2 thoughts at once ~~produced in the~~ ~~excited~~ exhibited of the different from either 2 med. same force produce an impression a compound of both, & we are disappointed in its effects

5th Certain sensations continue some minutes or half an hour after the impression wh. excited them has been removed.—

6th Sensation is destroyed by the impress

a top with different colours painted on it twirled round, but one or excited the mind

⊙ This accounts for the want of pain wh is sometimes Experienced immediate after the amputation of a limb —

⊗ As a Person who could hear the sound of a Pin put thro' a paper when he could not hear the noise of Cannon

✳ as Reigning Epidemic being driven away by the Influenza, or Small Pox

✱ as a Man curing himself of great pain by shaving

sion being disproportioned in force to the sensibility of the part to wh it is applied — Pain & Operation — ℞ of arsenic not quite destroyed the sensibility of the part — Sound — Cannon & pin thro' a paper — So a dose of medicine at first must be regulated

7th Feeble sensations often drive away a painful one more powerful — Keeping Epidemic — Razor & Paint — The system tho' must be worn down some time

8th Sensations are renewable by repetition & they are much influenced by habit. —

Effects of Habit on Sensation —

1st Certain painful sensations become less so by repit.

2d Certain originally painful becom pleasant by repetition

3d Certain originally ~~painful~~ pleasant become less so by repetition — as the Cold Bath

4th Certain sensations originally pleasant become painful by repetition — as Droping water from the Ceiling on the head

5th Certain sensations are destroyed given neither pain or pleasure, from impressions wh produced both — The Pleasures of Youth are destroyed in old age by repetition. The Miasmata in the W Indies will produce Malignt fevers in new comers & have no effect on the inhabitants. —

Sensibility is in proportion to the quantity of mind possessed — Irritability the reverse — While the Hair nails & Bones alone are renewed by Man — the Horse, Taenia & other Animals possess this reiterating power to a great extent.

6th Certain sensations are influenced by different ages in the power of exciting pleasure or paid

7th Sensations arising by comparison become more prompt & acute by repitition. as Linen Drapers

8th Ideas are not only renewable by repitition but there is a certain order established in them ever after as repeating verses.

9th Two or more sensations often excited together are ever after connected in the mind. — This is what we call a prociation of Ideas

Muscles & Tendons

The Muscular power or substance extends to every part of the body, hence the predisposition to take on convulsions & spasms. The Stomach, Bowels, Lungs, Trachea, Heart & Brain are all liable to spasmodic diseases. The contraction of muscles, is greater than that of any other elastic matter Hollow muscles are most irritable as the Heart Different parts are acted on by different stimuli The Brain is a reservoir of the muscular power, but muscles move independently of the brain. That is it depends on the organization of the muscle. A Tree will have its

x Sensibility yields to irritability in old age

its existence in winter but if brought into a warm atmosphere will put out leaves. The less the sensibility of the Muscles the more their irritability. Sensibility ends with life, irritability continues after death - The last predominates in infancy & Childhood. In equal proportions in Middle life - Once a man - twice a child x There is an integrity in the Nervous Venous & Arterial systems, all being necessary to Muscles

Influence of Habit upon Muscles

1st Action becomes correct by habit; as in Children catching hold &c

2d The Tone of the Muscles is influenced by repetition - Repetition changes active into passive sympathy - Repetition fixes a return of certain motions

3d Facility & Celerity of action are influenced by repetition - Irritability is increased at the expense of sensibility in this case. -

4th Repetition lessens the frequency & celerity of motions as medicine in the stomach

5th Repetition increases the strength of the muscles - They acquire a dark coulour after exercise. -

6th

6th Actions are influenced by Repitition & Celerity

7th Repitition associates Motions without necessity, as in making water before going to bed. —

8th By Repitition motions at first voluntary become involuntary & vice versa

Muscles are the instruments of Motion, On what does it depend —

Motions are Voluntary, Involuntary & Mixed.

The first includes Mastication & Speech

The second the action of the Heart & Viscera

The third Respiration —

Animal life shews how involuntary motions are performed viz. by force, or in other words by Stimuli. I came here, observed the Dr, apparently voluntary, but the air in the street stimulated my lungs — the lungs my heart; this sent a quantity of blood to my head. the blood stimulated my mind, this excited a susceptibility of impression, my sense of duty stimulated the Will, this the Muscles & they under this chain of Stimuli conducted me here —

No

No actions of the body are originally voluntary they all become so by habit. Air is the Premium Mobile, or main Spring of life. It is to life what it is to a ship under sail, or a windmill at work. Motions or actions at first voluntary afterwards become involuntary. This is exemplified in adults & particularly in old people. It has been wisely ordered that the action of the Heart & Lymphatics, are not voluntary, or in other words not at our disposal — Suicide would I suppose be generally accomplished in this way. They put the will at defiance. We have been looking within instead of without for the production of Muscular Motion I came, says the Professor to this chair to day by force — Voluntary motions are explained in the same manner. The will has no power in producing motions without external Stimuli. The brain & Mind excite a susceptibility of Impression, & the will moves the Muscles of the limbs — The Manner by wh. impressions on a part of the body produce Sensation is what is called Sympathy. —

Sympathy is of 2 Kinds

1. Sympathy of Continuity —

* An instance of Continuous Sympathy we have between the Rectum & Stomach e.g. A stool immediately after taking food or drink into the Stomach

An instance of contiguous Sympathy we have with the Stomach & external surface; & the rectum with the Bladder – thus a draught of cold water taken into the Stomach will increase perspiration & under certain states of it a contraction of the skin – Frequent discharge of Urine from Tenesmus, or from inflammation &c of the rectum –

⊙ As for example Hydrocephalus Internus from worms in the Stomach, & sickness at Stomach from affections of the brain

⊕ This Pleurisy from Suppressed Perspiration –

Delusive Sympathy when pain is felt remote from the part in wh the impression is made, as pain in the Shoulder in diseases of the Liver, Itching in the Glans Penis from Stone in the Bladder.

Mixd Sympathies – The Lungs with the feet & Genitals – Stomach with the Liver – The feet with the head & Stomach &c –

Continuous

2° Sympathy of Contiguity —

By the first we understand an intercommunion of Sensation kept up by a similar substance, or parts connected together.* Nespreement in the Nerves

By the 2° we mean that species of Sympathy wh is produced by no connection or communication, & in parts of dissimilar structure & matter. It is carried on by means of Nerves.# — as sickness at the Stomach fm another Vomiting —

Sympathy has likewise been divided into

Reciprocal Sympathy

Non Reciprocal Sympathy &

Inverse ~~Reciprocal~~ Sympathy. —

The first is exemplified by the Sympathy between the Stomach & Brain or Head.

The 2° by the Sympathy between the Stomach & Kidneys — The Kidneys can affect the Stomach but the Stomach cannot affect the Kidneys

The third by the Sympathy between the Lungs & Capillary Vessels — Effects are different in an inverse ratio. —

Sensation in a part remote from that, in wh the impression was made is called Error Sensus Motion in a part remote from that in wh the impression was made Error Motus

Motion

Continuous Sympathy depends on an inter-communion of ~~Sensation~~ nervous or sensorial power &

Contiguous, on an intercommunion of Sensation & Motion ——

Motion passes more rapidly in the Nervous system; next in the Skin. then the Bloodvessels Lymphatics &c. The Bloodvessels sympathize with each other from the Nerves but not from the brain. The Brain sympathizes with all the senses; with the Stomach producing sickness with the Liver & Spleen vomiting bile, & obstructions in madness, with the feet, all the Muscles, producing Headache after labour; & with all the passions of the Mind. — The Stomach sympathizes with the Head, with the senses, Liver, Heart, Kidnies, Eye producing Opthalmia — Intestines stomach, Bowels & Lungs. — The Diaphragm sympathizes with the Brain &c. There are some sympathies peculiar to some constitutions, some are formed by accident — Many sympathies exist in Health wh are lost in disease — Sympathies differ in different ages & sexes — They differ in different years in the same diseases — They differ in different seasons of the ~~same~~ year

Many sympathies wh exist in Health are suspended by disease — Sympathies differ from different predispositions in different people. — We come next to speak of those parts

where impressions made produce sensation
The Brain is a Citadel, the Nerves the Avenues, they the Senses. Impressions on the Tongue & Nose are Chymical the rest are Mechanical. Air has no effect on the Cuticle
Sympathy between the Skin & Stomach arises from the Continuity of the Skin. When the Liquid Moisture on the Tongue is Condensed, it is said to be furred — Depletion increases the sense of taste When Sugar tastes bitter, it is from the bitter Nerves being stimulated & conveying a bitter taste. — This is an Error Sensus.

There are Nerves conveying a bitter & a sweet taste
Dreams excite specific motions on the tongue & we enjoy aliments in Sleep. The taste depends in some Measure on the Smell, as it is not so acute when a Catarrh has deadened our Olfactory Organs

Pathology.—

Gentlemen

Hitherto we have considered the living body in a healthy state; such as divines considered man before his fall: but now we will consider him in an imperfect or diseased state.— Sickness & death, as moral evil, are the consequences of the forfeiture of primeval innocence, which, as soon as lost, was followed by these effects. Every element in nature took a part with the Creator & conspired with him against man. Their action however was feeble at first & slow, as we find by the age of some who almost reached a 1000 years; & it was not till after the deluge that the life of man was ~~reduced~~ contracted to the present age; the influence of which together with the Atmosphere conspired to produce. That life is a forced state is no less concordant to religion than to true Philosophy. Life consists in a strife or a temporary victory over causes which tend to induce death. Let us not suppose that the Creator delights in the misery of his Creatures, so far from this being the case that all diseases are blessings in disguise. They are necef

* Pain itself unconnected with disease has several important uses – It the harbinger of disease & often points out its seat. Those Diseases & Disorders wh creep or steal slowly on the system without pain are most to be dreaded, such as Cancers Pulmonary Consumption chronic inflammation of the liver & chronic obstructions of all kinds –

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sary to our general good & happiness, they are of important uses; they naturally lead us to the study of subjects highly important to the human race. Disease first rendered it necessary for man to undertake the study of Anatomy. 2° This leads us to a knowledge of Physiology. 3° It leads us to the study of Nature & the animal, vegetable & fossil kingdoms, without which the works of Nature would remain unexplored & unadmired. 4° It leads us to the study of the human mind; affords & furnishes exercise for our moral faculties; for without diseases there would be no benevolence or charity also there would be no hospitals to relieve the indigent. 5°

6° As darkness gives charms to light, in like manner is disease necessary to impart a relish for health. 7° It serves to increase our moral virtue; for many owe their virtue to a spell of sickness & 8°. It reconciles us to death & induces us to console ourselves under afflictions for the loss of our friends. + On entering upon Pathology I ~~am~~ am entering a wilderness without a guide. Boerhaave's notions & observations are short & not suited to the present improved state of medicine. Gaubius attempts to bring it into a system; but it is so full of the humoral doctrine, that it is of little service to students of the present day. — *

Pathology treats of the causes, seats & signs of diseases. —

~~1. Predispos.~~ 2d It is acquired in infancy, youth, in adult life & in old age in a great variety of ways all wh shall be taken particular notice of hereafter. It is acquired in infancy & childhood, by injuries at the time of Birth, By the custom of washing the tender skin of infants with ardent Spts by aliments of unwholesome quality or excessive in quantity by the passions of Nurses & Mothers, by improper methods of dressing - By Opium Ardt Spts & being given to children than wh nothing is more injurious, by premature application of the mind to study particularly such studies as are disproportioned to the faculties of a child, as Grammar, Dead Languages &c By confinement to close schoolrooms without exercise enveloped by

~~# Predispositions or Debilities 1st Arterial subdivided pulmonic, Aortal & Uterine 2d Hepatic Alimentary subdivided Gastric & Entric~~

~~* 6th Cephalic + Lymphatic~~

~~8th Cutaneous~~

azotic air for 6 or 7 hours every day, to wh may be added the Despotism of Schoolmasters — By falls & other accidents, by children being lifted up by the hair of the head & by their being violently shaken by angry Nurses or Mothers &c. ——— Debility whether natural or acquired when it occupies any particular part of the body has been called a Temperament. The Temperaments as divided by the Ancients are four viz Sanguineous Bilious Phlegmatic & Melancholic. But I object to the term

The different causes of diseases may be divided into four. 1st Remote, 2d Predisposing 3d Occasional or exciting & 4th Proximate (or morbus ipse.) They are all links of one chain: For instance in an inflammatory fever 1st Cold is the remote cause 2d The debility produced by the cold of a stove room or the vernal sun is the predisposing cause. 3d Heat the occasional or exciting cause & 4th The Convulsive or morbid action of the arterial system, the proximate cause. By the proximate cause I mean the morbus ipse of Gaubius, or the disease itself.

1st General Proposition

Debility is the predisposing cause of all diseases, whether it be natural or acquired; 1st By natural debility I mean a predisposition to disease brought into the world with us. This debility is brought into the world with us & generally arises from the intemperance of parents. It is followed by disease as soon as a child comes into the world as Red Gums &c ~~always attended with more or less irritability~~. *

The Temperaments as divided by the ancients are four viz. Sanguineous, Bilious, Phlegmatic & Melancholic or Atrabilious; but I shall divide them into seven viz. 1 Sanguineous 2d Bilious. 3d Nervous 4th Muscular, 5th Phrenitic 6th Alimentary* 7th Phlegmatic†. The Sanguineous & Bilious are often blended together & predispose to acute diseases especially in warm climates. There is an excess of Blood or Bile in these two. The Sanguineous is divided into Pulmonary & Aortic. The Nervous into three as it affects Nerves, Muscles, or mind

term Temperament as conveying no definite meaning & I adopt in its stead the word Predisposition by which I mean a preternatural aptitude to disease in any particular part of the body founded on debility either native or acquired & attended with preternatural excitability — By excitability I understand a capacity of being acted upon by Stimuli — Debility seldom general but occupying for the most part but one system of the body & predisposing it to disease —

Predisposition is divided into — 1 Arterial 2 Hepatic 3 Nervous 4 Muscular 5 Cephalic — aptitude to headache & 6 Phrenitic Aptitude to delirium & 7 alimentary 8 Lymphatic & 9 Cutaneous — Arterial Predisposition or Temperament is subdivided into Aortic Pulmonary & Uterine & predisposes to acute diseases especially in warm Climates — there is an excess of blood & — Hepatic — Persons of hepatic predisposition are said to have livers preternaturally large that secrete a preternatural quantity of Bile exists most frequently in warm climates & in autumn Discovers itself by aptitude to Diarrhoea, Cholic & Nervous Predis: discovers itself by a susceptibility of being violently acted upon by the the slightest corporeal or Mental impressions Persons of this Predis: are subject to Hypochon: Hysteria happy & miserable half a dozen times in a day — Cephalic Pre: attended with aptitude to headache Vertigo Apoplexy & Palsy; differs from the Phrenitic in occupying the inferior or lowest part of the head — Phrenitic differs from the Cephalic in occupying the superior part of the Brain & discovers itself in early life by an uncommon aptitude to acquire knowledge, Quick perception, is attended with great aptitude to become delirious from the slightest fever. Persons of this predispos

The Nervous temperament disposes to Hysteria Hypochondriasis, Melancholy, Madness & Epilepsy. The Muscular temperament is accompanied with little sensibility & great irritability. Persons affected with this temperament are unable to remain long in one place; walk fast, ride swiftly, & may be said to repose only in activity. They also possess little mind & often succumb under diseases because the nerves refuse to stand as centinels to the system. The Phrenetic is accompanied with an unusual irritability of brain, quick perception; when nerves & bloodvessels were healthy there was no disease & vice versa. persons affected with this temperament may be said to be all mind. The Alimentary may be divided into two, the Gastritic & Enteritic (Mucous) They dispose to diseases of that Canal & are connected with the bilious. The Phlegmatic Temperament connected with the inert organs of generation; Lymphatics are languid &c. Persons of the same age with the same exercise & on the same day may be taken with different diseases, according as the different temperaments predispose to different affections. 1st The Temperaments are often blended together in different proportions for no one temperament belongs exclusively to one person. 2d These temperaments succeed each other in different periods.

Predisposition may be said to be all mind — Muscular Pre: Known by little sensibility & great mutability in the Muscular fibre. Persons of this Predisposition are disposed to active employments & dislike confinement if necessity compels them to sit in one place, their hands feet & head are continually in motion — they walk fast ride swiftly, & may be said to repose only in activity they may be said to be all muscles. Alimentary Predi: divided into Gastritic & Intestinal. Because the Stomach is often very excitable, with healthy bowels & vice versa Lymphatic Predi: The Lymphatics perform their office with undue celerity & force

The Cutaneous Pre: discovers itself in the facility with which itching, redness Eruptions & are excited upon the skin from the slightest causes also in great difficulty of healing external wounds sores &c —

Some one of these predispositions is present in every person — There is scarcely any person but what has some weak part about him Perfect health is as rare as perfect virtue or perfect reason Predisposition is not always seperate or confined to one system, they are combined in various ways The Hepatic & Alimentary are often united — Nervous Muscular & Cephalic in persons subject to epilepsy — the nervous & cephalic are often blended — Nervous & Arterial sometimes combined in Hysteric persons — Predisposition vary in different period of life & in different seasons of the year. Thus the alimentary prevails in early life — Arterial & Hepatic in Middle life & Nervous & cephalic in old age arterine

of life & in different seasons. viz The ~~Sanguineous~~ Arterial in the Spring the bilious in the summer, the Nervous in the Autumn & the Phlegmatic in the winter. 3d Seldom absent in any one person. If born without he will soon acquire one of them or perhaps more. 4 "They descend to families, but are mixed changed and lost by intermarriages with Strangers. ~~These temperaments should never be lost sight of in~~ & 4th Some nations lose their temperaments by the admission of & intermarriages with Strangers. These temperaments should never be lost sight of in investigating diseases, or prescribing for them; for example, more depletion by V.S. in the sanguineous than in any other & more purging in the bilious than in any other; abstraction from study in the Phrenitic. Few men enjoy a perfect degree of health, all live in a predisposition to disease. Perfect health is as rare as perfect virtue or perfect reason. —

I have said that debility is the predisposing ~~cause~~ of all diseases. for farther observations on this head see the 1st vol: of my Inquiries. 2d That Debility is followed by an increase of excitability. 3d Debility whether local or general invites to morbid action & in this consists disease. for the Electric rod does not more certainly invite or attract the Electric fluid than debility invites to depression, & depression to dis-

* Disease consists in morbid excitement, by wh nature is driven from the relief & the functions of the body are performed with difficulty — Suffocated excitement takes place in prostration & depression. —

Arterial predominates in Spring Hepatic in Summer Nervous in Autumn — Lymphatic in winter — Predis: often descend from father to son but are mixed, changed or lost by intermarriages with Strangers — Some Nations lose their Predispositions by the intermission of Strangers — Weakness in one part commonly attended with Preternatural strength in others — The same remote causes act very differently in Persons of different predispositions — Persons of the same age with the same exercise & on the same day may be taken with different diseases according as the different Predispositions predispose to different affections — Same Medicines produce different effects — the same Epidemic appears with different Symptoms — This difference of Predisposition explains the reason why the Gout attacks such opposite parts of the body the weakest part constantly attracts disease — Lord Cornwallis used to say he could always tell the weakest part of his Camp by Gen: Lee's always being sure to attack the weakest part — a man may tell what is the weakest part about him by the same means for disease will attack that part — Relief has been given to many disorders by the cessation of Predisposition for want of excitability thro the influence of time on the disorder when excitement is below what is natural —

Healthy excitement may be placed at 50 Ther.

is kept up by the stimuli which support life already enumerated. If part of these stimuli are ~~ab~~ suddenly abstracted the excitement will come down to 40 there being at the same time an accumulation of excitability. This is the debility of abstraction. If the number or force of stimuli be suddenly increased the excitement first rises to 60 & then descends to 40 carrying along with it suffocating excitement. This is the debility from action. Debility from both its causes occurs more readily in Children & in old people, & in the middle of the night in the morning & evening. Debility admits of considerable range & does not always end in disease. Elevated excitement is the usual premonitory sign of disease. —

If the causes of Debility continue to act long or their force or number is increased Depression will take place. The signs of Depression are Coldness heaviness weariness Depression of spirits contraction & paleness of the skin. Debility has considerable range, say from 40 to 60, but there is only a Cobweb partition between depression & disease.* Debility & depression do not

* See next page

~~do not always exist in a desperate state~~

*, Depression forbids action & calls for repose abstinence & The Electric rod does not more certainly attract lightning from the clouds than debility invites to depression & depression to disease

do not always exist in a seperate state, they are often combined both existing at the same time in different parts of the body. Accession of a stimulus acting upon the accumulated excitability, seems necessary to the production of disease. A loss of Equilibrium as when first falling a sleep & are sometimes sufficient to produce it. Soldiers & Sailors & escape disease while they labour constantly, Physicians seldom sicken till Patients begin to get well. A sudden accumulation of excitability is prevented after violent exercise by abstracting it gradually. When stimuli are continued so long as to induce debility obstructions & may be produced without disease & this may be termed Disorder

Disorders are morbid affections in different parts of the body in which there is a want or expenditure of excitability with a waste of sensibility & irritability; a want of sensibility & motion; it occurs in the forms of Stupor Torpor Inertia &c. It is very commonly occasioned by the force & number of stimuli being so great as suddenly to destroy excitability thus preventing the production of disease. Disorders are most common in Southern Climates. Chronic obstructions of all kinds are disorders. Disorders are

* Suffocated excitement includes prostration & depression

are many, disease is an unit

2° General Proposition. All the remote & exciting causes of disease however diversified are an unit, all included under the name of Stimulus the diseases produced by them the same, just as fire is the same whether generated by friction precussion Detonation Electricity &c

3° General Proposition Disease when excited consists in Morbid excitement or irregular action in which Nature is driven from the helm & the functions of the body are performed with difficulty. Excitement may be excessive & not morbid, as in the excessive or elevated excitement produced by running Dancing or any violent exercise. Disease is often combined with the remains of Depression, & sometimes of predisposing debility. The remote & exciting causes of disease are often blended together & act at the same time also the exciting & predisposing. Disease is, either obvious or sensible, or it is suffocated. Reaction is the effect partly of the elasticity of the Muscular fibre. Morbid excitement excitement is often greatly disproportioned to the exciting cause, producing suffocated excitement. Discovers itself by wakefulness

I know of no disease which invades every part of the system

wakefulness, flushed countenance yellowness or redness of the Eyes, pulse natural - It may be converted into obvious disease by V.S. —

4th General Proposition Morbid excitement or disease is always partial. There is fever it is confined chiefly to the Bloodvessels, in Mania to the brain - In Tetanus to the Muscles & in Dysentery to the Intestines. Absence of excitement in some one part seems necessary to favour its accumulation in other parts. Absence of healthy excitement in ~~some~~ one part seems necessary to a morbid accumulation of it in another There are frequently days weeks & even years between debility & the morbid excitement produced by it —

5th Last General Proposition — There is but one fever one disease throughout the whole world & all the forms of it are produced by morbid excitement or irregular action. There is but one sin & that is selflove Adam was affected by debility in his will when he ate of the forbidden fruit. — It is immaterial where situated or however varied by texture still I contend for the unity of disease. (You well see that

* The functions of the body are performed with difficulty

* In most of the whole system is more or less deranged - a kind of delirium invades the diseased parts
# The solids are overstretched or contracted The fluids are propelled out of their native channels Error Loci becomes general

x whether from action or abstraction
⊙ or mob: ex

that I differ from Brown in my principles he makes debility a disease I make it one of the causes of disease). Obstructions & Schirrus of the Liver are effects of disease, not disease All disorders are confined to cases where morbid excitement has ceased or was never excited. Disorders are many, Disease, but one - Many persons die of debility & disorder without disease When disease is present the whole system is more or less deranged by it. There is preternatural excitement without excitability & excitability without excitement* - Old associations are discovered & destroyed - the system* affected by disease may be compared to a Ship in a Storm at sea, Nature is driven from the Helm & everything is thrown out of its natural situation *

Disease may be compared to a Ladder ascending & descending by the following steps -

1 Elevated ordinary excitement 2° Debility or Predisposition* 3d Preternatural accumulation of excitability 4° Depression 5* Action of an exciting cause or an irritant 6 disease, 7 Oppression or suffocated excitement 8*

Produce

o to such a degree as to be relieved by stimulants & not aperients
& left by the cure or removal of the disease

Prostration of excitement below the Point of reaction 9 Disorders or effects of disease 10th & lastly Debility
This is the usual order but there are many exceptions sometimes remote causes leap over debility & depression & directly induce disease sometimes overleaps disease & produces disorders remote causes are sometimes so violent as to leap over all the intermediate steps inducing sudden Death We sometimes see debility Depression Oppression Disease Disorders & Death all at the same time occupying different parts of the system. Inflammat (and as Hunter supposed the highest grade of disease) is the effect of disease & only takes place when Morbid excitement is moderate - Death often occurs without inflammation as in violent fevers that kill suddenly - they kill by the immense force of the remote cause extinguishing life without giving time for the production of inflammation or even disease Death often occurs from Hydrocephalus Internus, Apoplexy &c without any inflammation discoverable on dissection Morbid Excitement

∴ We are born with an innate predisposition to disease or Morb: ct –

is sometimes so violent as not to admit of effusion of any kind. The worst Opthalmia are those where inflammat of the eyes is not evident. they may be made so by by a plentiful use of Bloodletting ✝ We come next to the

Forms of Disease these are

1 Convulsion or the proximate cause of fever. this is chiefly confined to the Bloodvessels & muscles, occurs in Fevers Parturition, Tetanus, Epilepsy &c

2 Spasm. This affects the muscles as in Cramp the bowels as in Colic the Stomach as in Gastrodynia the Trachea as in Cynanche Trachealis the Uterus as in Parturition &c. It is divided into Tonic & Clonic. the former is constant the latter alternate. Clonic spasms occur in Parturition. —

3d Preternatural heat either external or internal as in the Skin Stomach &c. It is always local

4 Itching. This occurs on the Skin, Anus Pudenda &c. Never on an internal part or beyond the reach of the Nails —

5th Aura or Shocks. as Aura Arthritica in Gout. & an aura called by the French Tic Doloreaux but more properly Aura Dolorifica &

* Suffocated excitement includes oppression & prostration. This consists in such an accumulation & absorption & congestiation of Morbid excitement as to suspend sensation & Motion.

I have known it in the head – it consists of sudden darting pains – as a shock of Electricity it goes & comes on

3d Suffocated Excitement – this occurs chiefly in the Lungs, brain, Bloodvessels & known by the absence of frequent & full Pulse & of heat. Heat will become evident, the pulse rise & beg. to – I by no means limit the forms of disease to 3 there are probably many grades & shades of the 3 primary forms, Howlin mentioned they may all spring from one cause – Morb: Excitement –

There is hardly any disease confined exclusively to one form of M Excitement – often 2 or more exist at once in the same part – sometimes they are all present at the same time but in different parts; sometimes they succeed each other in the same part & even on the same day – as we see storms sometimes with rain then wind, Hail, Snow & Now storms are an unit & arise only from one cause – Morbid excitement in the atmosphere. – Thus Gent: have I given you the history of the Phenomena of disease – it may be seen in every

+ Nosology Many headed Monster Hay no more
Let unity of Disease perform the Cure. —

disease in a greater or less degree - Nosology may be compared to Old Heathen Mythology +

Application of the above Principles

When excitement is elevated regard the system in an unsafe state - remove Stimuli of all kinds & advise rest - Remove the Predisposing Cause (debility) by gentle Stimuli gradually applied Defend the System with double the Care when debility is greatest, at midnight in the morning & evening - Gradually expend excitement to prevent accumulation of excitability & Depression - If disease consists in irregular action, let your remedies be calculated to make it regular. Is disease an unit - then why not remove the same grade of it, wherever seated by the same remedies If Asphyxia pulse whether it occurs in Fever in Pulmonary Consumption or in Madness calls for similar remedies - The same grade of M. Excitem^t in the Lungs Brain Liver Bowels & call for similar remedies. I do not however mean to say that disease is always to be cured by the same

If partial, Let our remedies be to restore
the Equilibrium of the system

* 2 Disease produces Congestions in the bloodvessels
this begins in the veins —

same remedies. They require to be varied according to the part affected, & to the violence of the disease &c

Effects of Disease.

1st Inflammation or effusion of red blood into the serous vessels so much so as to raise the part, as in Ophthalmia sometimes inflammat^n is so high as to rupture the vessels — an error loci — The action of the vessels in the inflamed part is diminished, but that of the surrounding vessels increased. After this has continued for some time the circulation becomes languid, & congestions tumour &c are formed. — *

2d Increased Secretion & Excretion or effusion of serum &c constituting Dropsy — Gravel — Pus from unbroken as well as from broken vessels — Black secretion of the Stomach as in Y. Fever — Matter of Carbuncle, Small pox &c — This effusion of serum is often formed into Membrane as in the Trachea Uterus & Lungs. —

3d An increase of secretion & Excretion, as mucus semen &c

4th To induce Schirri Indurated tumours &c

5th To produce unnatural sensibility & irritability

X 6 Eruptions

or a deficiency of both or either of them - As in Stupor Inertia &c. X

7th Changes certain parts into bone

8 Produces Cancer

9th Certain changes in the Blood & all the fluids of the body, rendering them acid & altering their Proportions

10 Death partial or General - Partial death is Gangrene

all these depend on obstructions of nervous vessels

all the effects mentioned are not the ~~effects~~ result of perceptible actions

Seats of Disease

Seats of Disease

The seats of disease are sometimes with difficulty ascertained

I object to the necessity of knowing the seats
1st Because diseases are sometimes dumb shewing no fever pain, heat &c The liver is often affected without disease shewing itself —

2d From the effects of Sympathy, or what has been called intercommunion of sensation, we find it impossible to judge precisely of the seat of the disease Many diseases of the brain are produced by an affection of the stomach & vice versa, & how often do the signs of disease in one appear in the other A woman was seized with puking & discharge of bile for the intestines wh was supposed to be bad or by a schirrus of the liver, these symptoms continued & she died Upon dissection the liver appeared to be in a healthy state, & her Uterus alone was diseased —

3d In all general diseases the seats change with the weather, seasons of the year, with the remedies employed, & also in certain stages of the disease

4 Dissections will not teach us the causes of disease 1 Because they often shew us none 2d They deceive us by presenting effects for causes

thus Ulcers in the lungs in Pulm: Consumption are the effects not causes, Water in the Brain tho't to be the cause of Hydrocephalus: Intern, which it is only the effect — 3d We often find marks remote from the diseased part — for instance, a Stone in one kidney with disease in the Other &c &c

Tho' I mention it is difficult & often impossible to find out the principal seat of disease Yet I am far from thinking this kind of knowledge unattainable or altogether useless — thus diseases of the head yeild most readily to Purging — those of the Lungs to V.S. & those of the limbs to sweat & blisters — Happy for us we can cure disease without being acquainted with its seat — We have an important resource in both the arms there most signals wh indicate diseases better than any thing else — I mean the Pulse, & if this at any time fails the tongue Countenance &c &c may perform a vicarious office for it A uniform knowledge of the seat of disease wd be useless as we cannot tele whether its concave or convex Surface be affected or whether its Arteries or Lymphatics

Signs of Disease —

Signs of disease have been divided into common & proper, also into primary & secondary — Symptoms of disease have also been divided into Diagnostic & Pathognomic — They are however uncertain & unnecessary. —

1st Relation sympathy & association are different in the diseased & healthy state

2d Signs of the same disease is different in different people

3 They differ in the force of the same disease in the same person at Different times

4 They differ in different Climates

5 They are in many instances a part of the same disease

6 differ in the same diseases in the same person —

7 They differ as they relate to its form & state —

8 They differ as they relate to its beginning increase, height, crisis & tendency to health. —

9 They differ in different days. —

Opinion of the danger of disease is formed 1 From Perspiration urine & Feces, including the quantity. Quality & times of discharge Costive

nesp is a sign of Predisposition to Dysentery. —
Vertigo of Predisposition to Apoplexy. —

2° The Tongue & yellow indicates in some cases diseases of the Bile &c

3 Respiration

4 Conversation

5 The position of the body in bed

6 State of the Muscles —

7 The Appetite

8 The Senses & Mental faculties

9 State of the body as to heat or Cold

10 The existence or non existence of pain also the nature of it —

Pain

There are 3 Causes of pain

1 Stimulus overdistending & producing a tendency to Mechanical Solution as in Fever Lacration of Bone &c

2° By such a relaxation of fibres as disposes them mechanically to contract. —

3 Certain Chymical Stimuli

The signs of pain appear in every part of the body all in a convulsed or contracted State — hence

the phrase of biting the dust — That pain may be felt it is necessary that the extremities of the nerves, & the mind, be not preoccupied so as not to be elevated above the grade of pain sometimes in highly elevated states Blisters cannot be felt also when the system is below the grade of pain as in the low state of Typhus — Epilepsy & Drunkenness have suspended the pains of Parturition An insensibility to the pain of wounds in battle is owing to the system being elevated above the grade of pain, & some submit to severe operations with readiness — The insensibility of the primitive Martyrs amidst all their sufferings was owing to the same cause, as also of the Indians when suffering.

Pain tho' an unit imparts very different sensations, as it affects different parts of the body thus it is twisting in the Bowels Acute in the head jumping in the tooth ache & dull in the Liver.

Pain varies with the causes producing it, thus pain for an injury with a blunt instrument is different from pain when the injury is made with a sharp instrument — The head pays dearly for its preeminence as the seat of the mind as it suffers

by sympathy with every important viscera, Stomach, Uterus, liver, Spleen

Pain at first excites the mind, afterwards agitates it with the fear of death, produces the loss of domestic affections — In a very high degree it deafens the sufferers to call on their maker, or on their dear, or departed friends Sometimes it produces sullen silence, singing, laughing, occasional transports of glory &c — Pain is most sensibly felt at the extremities of Nerves

Pain does not always accompany disease, nor is it always proportionate to disease —

Pain is of an attractive nature, this explains the reason why fevers attended with much pain in the back & loins are rarely fatal — Pain is felt most sensibly by persons of a Muscular Predisposition — Women are most susceptible of pain during the periods of Menstruation & pregnancy.

Circumstances of a consolatory Nature with respect to pain, 1st It is seldom constant but has intervals of ease, & it is then best borne as we see in Colic Stone &c — Also best borne when it comes on gradually 2d Incurable pain is seldom Acute, but dull as in Cancer &c

3° Constant pain is contrary to Nature, as it destroys itself by wearing away the excitabilety

Related to pain is Anxiety

Nausea is another sign of disease different from pain & anxiety. —

A uniform knowledge of the seat of pain wd be not only useless but hurtful to us. —

But pain is by no means the only sign of disease In both arms the are more certain signs — there most signals wh indicate disease better than any thing else I mean the Pulse when it fails to give us any information of disease, wh is very seldom the case, the tongue perspiration secretions &c &c may give some insight, or the Countenance perform a vicarious office for it By an attention to the Pulse I have discovered diseases & prevented death when the patient did not complain Of all the signs of disease I regard the Pulse as by far the most valuable — Let not any one of these signs direct you to the causes of diseases or in yr prescriptions for them — My doctrine rejects none of them, nor shd any of them be neglected — But in it the greatest homage is paid to the Pulse

Pulse

The Pulse may be called a Nosometer or compared to the dial plate of a watch or clock it informs you of all that is going on within. In order to acquire an accurate knowledge of the pulse in its diseased state, it is necessary that we shd be acquainted with it in its healthy state & also in the different stages of life —

In the Healthy State of the Pulse it is open, vigorous, free from all resistance & at equal intervals between each pulsation — This state varies under different circumstances

1st varies accordg to the age of the person — At the commencement of life or a few days or weeks after birth, the pulse ranges between 130 & 140 strokes in a minute — Towards the end of the first year 124 at 2 years of age from 108 to 110, at 3 years of age from 90 to 100; at 4. 5 or 6 years of age from 80 to 100 & at 7 it falls from 90 to 72 In adults it is from 60 to 80 generally 66 in the minute — In old age it is less frequent & more full — This is so much

the case, that when it differs from it, it shows signs of disease. at the age of 60 the pulse beats 66. In an old person of this City it beats only 36. In some according to Dr Heberden it descends as low as 26.

2d Sex influences the Pulse in its quickness, that of Females being more frequent than that of Males. — as women are more irritable

3d Different states of Society or Civilization influence the Pulse. It is slower in Savages than in Persons brought up in a civilized state. Savages want the numerous stimuli of thought conversation &c which civilized people enjoy. hence too the pulse is less frequent in Countrymen than in Citizens. — I have felt the Pulse of 10 Indians and found it below 60 in 8 of them, the others ~~two reached that number~~ was 60 but one of them had been previously sitting by a fire & the other was the offspring of a Frenchman. All those who spend their time in idleness have slower pulses than those who are busily employed.

4th The sizes of people affect the Arterial System, its pulsatory motion being quicker in the short or low. Ceteris paribus, than in the tall. — Haller says in very tall men it is not more than 35

5th Climate & the different seasons of the year affect the pulse, being quicker in warm than in cold climates. In Green-

At 12 oclock at night it is at a low degree of frequency — slowest at 7 in the morn^g at mid day stationary, then descends less frequent in the afternoon — at 8 or 9 oclock it increases — at 12 oclock at a low degree of frequency —

* Accelerated by a full meal, and retarded by fasting for some time, but afterwards it rises, so persons who die of famine die of a fever —

it is 100

land it scarcely exceeds 60. In the West Indies, quicker in new comers than in the old inhabitants. In new imported slaves it is quicker than in those we have had for some time among us

6th Different times of the day influence the Pulse. It is slowest in the morning at noon it is highest & then gradually descends till evening, at bed time it is generally slower on account of the exhaustion of excitability.

Different degrees of Light & Darkness - important.

7th Different in the sleeping & waking state, quicker in the latter by 8 or 10 strokes. —

8th Different positions of the body influence the frequency of the Pulse, thus it is slowest when on the Back, quicker when on the sides, quicker still when sitting up, & quickest when in an erect posture.

9th Fasting. Food & drinks, especially such as are Stimulating influence the Pulse + viz quicken it. —

10th Different positions of the arm influence the pulse, when the arm has been exposed to the cold some time the pulse becomes much slower, & also when the arm is prepsed under the body, & when its muscles are in action, hence the propriety of warming the arm & relaxing its muscles when we feel the pulse. —

Sieff reduces it below 60

+ Blisters affect the pulse more or less according to the parts applied — the must know the blister pulse, Opium pulse, & Mercurial pulse, in order to distinguish them from the morbid pulse —

11th Exercise of the Understanding & the passions of the mind, those of a sedative lowering & vice versa. — *

12th Anger quickens it to 140, conversation quickens it - hence the propriety of feeling the pulse before the patient begins to describe his disease

13th Bodily exercise. If the natural state of the Pulse be 64 when sitting, standing will increase it to 68, walking at the rate of 2 miles an hour 78, 4 miles 88, & running from 140 to 150 in the minute. —

14th Pregnancy quickens it, quicker also when the menses flow, & during menstruation. It is of consequence to know this in chronic cases of disease. All pregnant women have their pulse preternaturally quick or slow

15th Certain Medicines quicken the Pulse, such as Opium Vomits, Purges, Bark, blisters, steel, hot & cold Baths &c. *

16th Coughing quickens it. —

17th. Fear influences it hence in visiting a Patient we should wait a few moments in order to let him get over his agitation produced by our presence. I have seen the Pulse fall after prescribing V.S. —

18th Intensity of thought influencing respiration, lessens the pulse

Judge Peters —

between 60 and 70 & there are —
maimed — , ~~Morbid Matter of the Pulse~~

— by means of their contiguous
Sympathy —

There is some deviations from the general rule of the pulse (for example) ~~there is a Gent:~~ in this City whose pulse is 100 in a minute when in good health, & a Lady whose pulse does not exceed 40 in a minute in health & 60 in a high fever. In others it is preternaturally quick. I heard of a Clergyman whose pulse in a healthy state beat 100 in a minute. A fever afterwards restored it to the common standard. There must have been too much excitability in the system; this diseased or morbid state, was removed by the action of the fever. — Before I enter upon the morbid states of the pulse I deem it necessary to deliver a few Physiological propositions. —

1st The Heart & Arteries are connected & invested w.th muscular fibres possessing great irritability, or a susceptibility of being acted upon by the different Stimuli, hence if one part be affected the whole will sympathize. They may be compared to the sensitive plant or to the bells of the Jewish high priest, touch one & all will ring. —

2d The heart & Muscular fibre possess irritability. —

3d The same motions excited in one part of the arterial system are communicated to others, this is illustrated by the case of Hicks who died in this City with an enlarged omen-

1 For his pulse was very small –

2 It soft, the vessels are so engorged that they cant put on a tense action –

3 Weakness of the Heart itself

tum which prefsed upon the Aorta & contracted its diameter & affected the whole arterial system. This will lead to the explanation of many other appearances for in most diseases we may expect to find the same kind of action in the artery as is in the diseased part. Is the Pulse tense in acute Pneumony? The same occurs in the Pleura or membrane of the Lungs in the whole arterial system. Are the vessels of the Lungs engorged in a Pneumonia Notha? The same occurs in the whole. Are there intermissions in the pulsations of the Heart? The same takes place in the whole arterial System. Is the Stomach or upper bowels inflamed? The pulse is small because the vessels of these parts are small. The pulse is more tense in inflammations of the Colon, only because the arteries of the colon are larger. If the pulse is not small in Opthalmia & inflammations of the joints, it is only because larger vessels are brought into Sympathy by Contiguity.—

There are diseases in which the Pulse does not sympathise, but these are few & may arise from the following causes. 1st From a want of irritability. 2d From suffocated excitement. 3d From the disordered state of the Artery at the wrist. 4th From large portions of fat prefsing upon the pulse 5th From an accidental prefsure of the Muscles of the arm by the posture of the body. 6th

Or the disease being insolated in the lungs, as in Catarrh, the Artery doesnot sympathise, so we are to bleed in a catarrh without regard to the pulse —
The pulse is slower in inflamed parts —

From cold. 7th From want of irritability in the Contiguous parts 8th From a want of Sympathy in the heart preventing it from equalizing the action of different parts. 9th From unequal excitement in the bloodvessels, as in the ataxic fevers of Alibert in Palsy & cough. This want of Harmony accounts for the fact mentioned by J Hunter viz- Sizy blood with a natural pulse. There may be great disease in one part with little action in another. Let not the number of these exceptions preclude the feeling of the pulse for they do not occur in more than one case in 20, & we sometimes see the absence of pain in malignant fevers when the tongue is foul &c & vice versa in diseases of less consequence.

(Thus I have mentioned the different states of the pulse as they occur naturally in the different stages of perfect life, But as Physicians it becomes us to go farther & acquire a knowledge of this important part of the human frame as it varies in consequence of the numerous incidents & diseases to which it is subjected viz)

The Morbid states of the Pulse.

These are known 1st By their unnatural frequency & quickness. These are not necessarily connected for the pulse may be very quick and

yet not frequent as in the Yellow Fever. By frequency is meant the number of strokes in a given time, viz a minute. By quickness the time in which each stroke is performed. The pulse varies from Health in Quickness & fulness, as in yellow fever & other acute diseases. here it varies from 60 & 80 to 180 & even 200, & falls in some diseases to 40, 30, 20, & in one or two cases to 9. In Apoplexy it sometimes falls as low as 7.

The Quickness is probably caused by an irritable state of the Bloodvessels, they contract more quickly by the stimulus of the Blood, (the Arteries especially) this irritability I conceive to be induced by the stimulus of Miasmata. hence it occurs in Intermittents, Yellow Fever &c. This circumstance in some cases gives rise to the intermitting pulse. this is when there is a cessation of Pulsation for a certain time after every 1st, 2d or 3d stroke, & frequently occurs in Malignant Fevers.

The slowness may depend upon 3 Causes. 1st Pressure, as in Apoplexy & Palsy, the pulsations being equal to each other, but intermissions occur. 2d Spasms of the heart, & 3d defect of irritability in the Arteries. —

2d By their force & irregularity, this is of more consequence than variation in frequency, quickness & fulness — also by

* In the whole arterial system —
† In the depressed pulse, the heart and
arteries suffer their irritability —

imparting a jerking sensation to the fingers, resembling a shattered quill. — We now proceed to consider the different states of the Pulse as they occur in disease & particularly fever.

1st The Depressed Pulse. This state of the pulse is occasioned by stimuli acting so violently as to depress the system below the point of reaction — or by pressure on some great vessel. — It often descends as low as 40, 30, 20 & sometimes so depressed that it is imperceptible. It is raised by ℞. It is sometimes preternaturally frequent or slow, attended with intermissions & sometimes natural. It occurs in Plague, Yellow Fever & Malignant small pox & in Pleurisy. It is either partial or general, occurring in the extremities in the former, & in the latter* occasioned by stimuli depressing the Strength below the healthy state†. It resembles the weak or Typhus pulse; the following directions will serve to distinguish them. —

1st The depressed pulse is known by its occurring in the beginning or forming states of Fevers, or in the paroxysm of such fevers & other diseases as are periodical. —

2° By imparting a sense of tension to the fingers when long & attentively felt.

3° By occurring in morbid affections of the Brain, heart,

It is generally quick, but not always frequent –

I have noticed also – Groches Pores

Stomach & Bowels, more frequently than in diseases of other parts of the body.

4th By its being raised by V.S. Purges &c taking off the suffocated excitement —

5th By its being frequently attended with slowness or intermissions. This pulse may be compared to a tree bent by the winds & rising to its pristine state when the storm has blown over. while the Typhus resembles a tree shattered by lightning, & which cannot be raised but by the hand of art

2d The Catgut, Corded Sulky or Locked Pulse, is small quick, tense & distinct, imparts a sensation to the fingers similar to that produced by feeling a piece of tense catgut whence I have named it. It occurs in Malign.t Fevers

3d The Synochus Fortis (The reverse of the two former) a full round, vigorous, frequent & quick pulse without hardness, which occurs in the highest grade of Bilious Fevers. Exercise produces a pulse somewhat similar to this. —

4th The Synocha or common Inflammatory Pulse, being full, quick, frequent, & tense but not round, and is known by heat thirst &c occurs in common inflammatory fevers. This Pulse exists sometimes in the Plague, Yellow Fever Jail Fe-

It imparts a sensation like a Quill or rather a large Quill —

round, full

∴ Synochus Mitis — This is full, round soft & ~~flowing~~ frequent — occurring in Mild Bilious fevers

ver & small pox, but more frequently in Pneumonic affections, Rheumatism & Arthritis. ✝

5th The Synochula. a quick frequent moderately tense but small pulse a Diminutive of Synocha imparting a sensation to the fingers similar to a small quill & occurs in chronic Rheumatism, Gout, Phthisis Pulmonalis &c and in the 2d stage of other Fevers. ✝

6th The Synochoid. This is alternately a hard & soft pulse, feels like a shattered quill & is a compound of Synochus & Synocha. It occurs in the passage of fevers from the inflammatory to the low state of Butter. or from an acute to a chronic disease. Feels like a quill that has been trodden on.

7th The Typhoid, a frequent & less tense than full pulse. This is composed of Synocha & the slow chronic state of fevers & occurs in the Hectic & Puerperile fevers & in Scarlatina &c The Pulses preceding Typhus are above Par, those succeeding Typhoid are below par.

8th The Typhus a weak, small frequent but not full or tense pulse. This occurs in the low chronic state of fevers, also in the close of inflammatory diseases, when deple=

× Gaseous Pulse

× Fluctuating

* The Double Pulse

ting remedies have not been used in the first stage. The Bloodvessels in this appear to be deprived of a part of their irritability, it is here that V.S. is forbidden & Stimulants are to be given.

10 9th The Hectic Pulse. The forms of this Pulse are various being occasionally Synochoid Typhoid & Typhus. It occurs in Phthisis Pulmonalis, Podagra of Tabes from the Lues Venerea & Scrophula. –

11 10th The Hobling Pulse, is unequal or fluctuating, tense, quick & very frequent & may be divided into two, 1st One, two or three quick strokes succeeding a slow one & 2d One, two or three slow strokes succeeding a quick one. –

12 11th The Dicrotus & Capriscans Pulses the former strongest & is the description just mentioned

13 12th The Serrated Pulse, strikes the fingers like a Saw. –

14 13th The Vermicular Pulse. Small frequent & resembling the motions of a worm. –

same French –

15 14th The Creeping Pulse. Weak & Small occurs at the close of Life. –

16 15th The Apparently morbidly Natural Pulse, occurs in the worst Malignant Fevers, great danger is to be apprehended from this difficult to be distinguished from a healthy one. –

* The stroke which succeeds an alter-
nation, is twice as strong as the 2d & 3
preceding —

Scarcely ever any one of these always present. They are therefore combined 1st In double proportion, as full & weak full & frequent, full & quick, quick & frequent, depressed & weak, slow & intermitting &c. 2d They are compounded ~~in a~~ threefold ~~ratio~~ as full strong & frequent; small weak & slow at the same time. — 3d In a fourfold ratio as full, strong, quick & frequent at the same time. —

17 16th A full, bounding, slow & moderately tense Pulse which occurs in Palsy, Dropsy &c. It is especially slow in the affected side as in Hemiplegia. I examined the pulse of a Paralytic patient whose artery beat on the affected side only 50 in a minute while on the other side it beat from 80 to 96. —

18 17th A weak low Pulse without irregularity. — Occurs in debility, without fever &c and is distinguished from the weak slow pulse of Malignant Fevers by its occurring in the last stages of diseases. —

19 18th The Aneurismatic Pulse. full tense & jarring. There is sometimes also an absence of pulse for 2 or 3 days, I have heard of an absence of it for 7 days. ~~This Pulse occurs in Aneurism — whence its name.~~ A total absence of the Pulse occurs often in violent affections of the Stomach & bowels, it lasts for hours. One Lady I have known to continue without a pulse for 36 hours

in consequence of eating some oysters. this Lady has since recovered & been quite well for many years. * See Gaseous Pulse

In order to inform your patients of the state of the Pulse, which sometimes they are extremely anxious to know, you should compare it to a scale of 10 degrees, with 5 above & 5 below the healthy point. The Pulse is very much influenced by the strength of Body. In a Pidgeon it is 100 in a Dog 80. In the Ram the pulse has been found to beat 65 in an ox from 36 to 38 & in England in a horse from 34 to 36 Strokes in a Minute. — In the U States 40

~~. I have now delivered all the Pulses which have occurred in my practice.~~ + Dr Gallmard a French Physician has discovered another which he calls the

Gaseous Pulse, Soft full & round but sinking under the fingers, even the pressure of the little finger produces this. —

I shall next give you some directions for acquiring a knowledge of the state of the Pulse. —

1st Never feel the pulse of a patient the moment you enter the room. your presence excites hope, fear or some emotion in his mind, wh. has an influence on the Pulse. If the weather be cold, warm your hands & feet first. but beware of entering into any conversation with him before you feel his pulse, as

+ The first impression of the Pulse like the first sight of a mark to a Sportsman is always the best

the influence of Conversation is very great on the Pulse. ×

2d Place your whole four fingers on the Artery this gives you a much better opportunity of judging than one finger could do.—

3d If you feel the patients left arm use your right hand & vice versa.

4th Feel the wrist of both arms as there is in many cases a difference in the two from several circumstances, as an exposure of one arm to cold air Pressure on the Artery &c. &c. I have corrected my judgment frequently in this manner - from one arm I had prescribed bleeding, from feeling the other retracted my opinion. 5. Never remove your hand till you have felt 20 strokes. I have observed an intermission in the pulse at the 18th stroke. The Chinese Physicians feel 49 thence perhaps their accuracy in the Pulse 6 If the case be Critical shut your eyes order silence in the room &, to use an expression of Darwin's, "Concentrate all sensorial power in your fingers ends. The influence of sound &c detract from the accuracy of feeling. —

7 If the Radial Artery be from any cause not easily felt - feel the Temporal which is the next best - & here Gent: excuse my making mention of a Caution in the application of Blisters - never apply them so as to prevent your feeling the Pulse

if you do feel it afterwards you give him so much pain as to make an alteration in the pulse. The Temporal Artery must be felt.- This artery you must feel in diseases of the brain.

Thus Gent: I have related the knowledge I have acquired of the Pulse during my reading & Practice. they are the experience of my life - they dictate when bleeding is indicated & in what quantity. Always feel the pulse before you prescribe any of the following remedies.- Vomits, Purges, Blood-letting. The Hot & Cold Bath, Pediluvium - also before the use of Stimulating medicines - as Bark & Wine Stimulating & nourishing Aliment & Drinks, as they all change the Pulse very much. The frequency of the Pulse tho' of little consequence comparatively with the force & other characters of it - has been much relied on by the Physicians of Europe especially G. Britain - They use for the purpose of acquiring a knowledge of its frequency moment watches, quarter minute watches &c But this is rediculous & I hope they will never be introduced to American Practice. A Spanish Physician by the name of Solano has made many observations on the Pulse from some of which he asserts that 180 is the greatest

Diseases have been divided into Idiopathic & Sympathetic. This however is not a good division for disease is to be cured in the same way whether Sympathetic or Idiopathic Hydrocephalus Internus is thought to be produced by worms in some instances - here the worms in the intestines constitute the original disease the Hydrocephalus is the Sympathetic. This sympathetic Hydrocephalus is to be cured however in the same way as Hydrocephalus from a blow on the head - Diseases have likewise been divided into contiguous & non contiguous, into Endemic & Epidemic, Sporadic, Vernal Autumnal &c. See page 191 The remote, predisposing & exciting causes of disease act in producing it sometimes seperately at other times 2 or all of them are combined

number of strokes which the arteries can beat consistently wth the recovery of the Patient. 200 in Hydrocephalus is quite common, but whether these ever recover I know not.. The observations of Cullen are opposed to those of Dr Solano, he says Dr S. observations are useless. —

Plato we are told had inscribed over the door of the School where he taught his pupils, "Let no one enter here who does not understand Geometry". In like manner were I to dedicate a Temple to Medicine, I would inscribe over the Doors of every Apartment & depart from — Let no one enter hence who does not understand the Pulse.

* Division of diseases —

Of the Remote Causes of Disease

We come now to enquire into the numerous causes which lay the foundation of disease. It has been aptly said that as soon as a Child comes into the world "it inhales the lurking principles of Death". The remote causes predisposing children to disease are the following. 1st The ignorance of the midwife with respect to delivery. 2^d Washing the child in spirits of wine harsh soap &c. 3^d The use of spirits internally & spicing diet &c 4th Sucking bad milk &c. 5th Caps swaddling

*: Air may be divided into hot warm temp: cool & cold. #

× Heat & Cold are relative terms

A. on the Nervous system disposing it in a peculiar manner to be affected by stimuli of every kind

B 1 Preternatural Activity 2° indisposition to voluntary motion 3° Torpor & Langour, producing irritability also

producing irritability of the muscles

Heat affects the mind first with sprightliness, afterwards drowsiness & dest.

Afterwards &c &c

Hot air exceeds 96° Warm between 96 & 75 temperate 75 to 65 Cool 65 to 32 Cold below 32° These divisions apply to the positive & not to the relative effects of Cold –

cloaths &c 6th The Manner of Education, confinement in close schools &c 7th The Amusements of Children, subjecting them to falls burns &c &

The Atmosphere produces diseases, by its sensible & insensible qualities. The former are Heat, Cold, Moisture & dryness, density & rarity. Those of the latter are Marsh & human effluvia &c From these originate all febrile complaints. ⁂

Condensed effects of Heat. This is an universal Stimulant; when moderate as at 75 it is friendly to Health; but when above this produces debility from action. When in excess its effects are shewn 1st In the Arterial system by producing fever &c 2d When combined with the rays of the sun, it affects the Brain producing what has been called insolation, also sleep, stupidity & Death. 3d On the Nervous system producing convulsions, syncope & death. 4th On the Muscular fibres producing weakness, langour, indisposition, involuntary motion of the muscles, Tetanus &c 5th On the skin producing itching, pimples & a brown colour; when moderate produces moisture, perspiration & sweat; but when in excess preternatural dryness &c 6th On the Stomach increasing the appetite & then inducing a decay &c 7th It increases the venereal Appetite. 8th It induces a tendency to putrifaction in the Blood. 9th It gives in Fevers

‡ It weakens the sense of Taste it affects hearing in the bowels it disposes to Cholera Dysentery. The urine never indicates scarcely any change at the crisis of fevers in the W Indies

A By producing debility it blunts renders dull & weakens the operations of the mind producing langour

B Inflammatory fevers seldom fail to follow heat when preced by cold. The body suffers less by passing from the extremes of heat to cold than from cold to heat. Heat when long applied produces insensibility to cold as well as to itself

D 1st Such causes as tend to decrease its morbid effects
2d Such as tend to increase its morbid effects
Heat when uniform & dry is healthy an air totally devoid of Moisture is scarcely fit for respiration

E Diseases occurring in dry are less violent than those occurring in hot weather

G Morbid effects of heat are much lessened by habit, & time by motion promoting perspiration, by Abstinence, eating vegetables only & drinking nothing but water
Heat as applied to the whole or a part of the body acts differently it is more injurious in the latter case

the humors in the body a centrifugal determination as in Bubo, Glandular Swellings &c. 10" It increases the excretion & secretion of bile, which corrects the tendency to putrefaction in the blood mentioned above. 11" It favours the production of the menses & shortens the duration of their flowing. 12" It affects the eye sight producing gutta serena, opthalmia &c. 13" It weakens some of the operations of the mind; but strengthens the imagination. 14" It increases the lacity & lessens the density of the Solids. * 15" It is less friendly to young than to old people, hence the practice amongst the ancients of changing a ~~warm~~ cold for a ~~cold~~ warm climate when they became old. By this means they prolonged their lives 10 or 12 years. *

The Relative effects of Heat.

are When the system has been exposed to cold, it is then acted upon more forcibly by heat. B a Warm winters are followed by unhealthy springs, hence the propriety of the old saying "that a green Christmas makes a fat grave yard". Weather becoming temperate after being very warm produces diseases by checking perspiration. Autumns succeeding very warm summers are often attended with bilious fevers. E a The fall of 1793 was preceded by a warm dry summer. 4 Fever was then more violent 4 No climate necessarily unhealthy: but they are made so by the intemperance &c of the inhabitants; for it is ascertained

that sleep, diet, drink, the passions &c have a great influence over the body. Uniform dry weather seldom induces disease, only when succeeded or preceded by moisture; thus diseases are generated in one season & produced in the next. Upon the whole I conclude that wet seasons are generally healthy, & that most diseases are induced by transition from cold to heat & vice versa, diet drink &c

Of Cold. This has been erroneously supposed to act as a stimulant upon the system. Its effects are negative.— It acts only by the abstraction of heat; that it is a sedative I infer 1st From the General debility it produces. 2d From the slowness of the pulse & weariness. 3d From the operations of it being similar to those of other debilitating causes, such as V.S. purging &c. Is the pulse slow in Pleurisy Y. Fever &c? So it is from depression. Is it raised by V.S.? Emetics? So it is by abstracting excess of stimuli. ~~Is it raised by emetics? so it is by an abstraction of the excess of stimuli~~. Cold acts by inducing direct debility or debility from abstraction; heat by inducing indirect debility or debility from ~~action.~~ Upon the application of cold part of the heat is abstracted hence the apparent tonic power of cold when our bodies have been debilitated by heat.

c Cold is most injurious when alternated with heat & combined with moisture. Moisture increases the sedative effects of cold by conveying off a greater proportion of the heat of the body

* It attacks the solids & thus the human body is lessened in size

× by the reflexion of the cold rays from the snow

~~lessened in size~~

The Positive Effects of Cold appear 1st upon the arterial system by inducing debility or increasing excitability, disposes the system to all kinds of Fevers. 2° upon the nervous producing a dullness of sensation. 3° upon the Muscular, producing langour, debility &c 4th It invigorates the appetite, hence the Germans are notorious for their warm stables in order that their horses may eat the less: 5th It weakens the venereal appetite. 6th It increases considerably the discharge of urine 7th * it is unfavourable to size 8th It operates with other causes in producing scurvy 9th It disposes old annual sores to bleed afresh 10th It is unfavourable to vision x. 11th It in a certain degree produces paleness of the Skin, in a greater redness, & in a still greater a purple or dark colour. 12th It acts powerfully in sleep hence most diseases attack us at that time. 13th It acts more powerfully upon old people than upon young; hence we hear of their being found dead in the Cold & with their children by their sides alive. Case of a woman f. who was found dead and her child alive & at the breast. —

Relative effects c

Weather uniformly cold is healthy. In Canada diseases of all kinds are locked up, & they are only let out when heat succeeds or precedes cold. Heat succeeding cold produ.

ices diseases. The Spring of Russia produces fevers of a peculiar kind, and our falls also: thus the diseases of cold climates are generated in one season & produced in another & vice versa. Heat does not produce diseases after the long application of cold; because the vessels become torpid & are not able to react.

Cold produces diseases in Northern climates when warm dresses houses &c are not used. The sudden transition from heat to cold or v. v. does not necessarily produce disease, or vice versa - more care and attention in accommodating ourselves to the weather by dress diet drink &c would prevent diseases.-

Middle Latitudes not necessarily unhealthy tho' they require more care & attention to bed cloathes & dress. The Chinese change their dress 2 or 3 times a day, in order to accommodate themselves to the weather.

Cold feet induces Catarrh. Nine tenths of all the diseases of the system are received into it by the avenues of the feet and mouth. (Cold acts more powerfully on the system in the sleeping than in the waking state, hence nine tenths of the diseases are taken in the night). Cold acts more powerfully when the stomach is empty, more powerfully on drunkards than on

sober persons; because the first are generally very much debilitated when not under the effects of some stimuli.

Cold as I have said is the predisposing cause of ~~all~~ in many diseases. More suffer from it than from any other cause in nature; not only of man but of other animals. The diseases are also more numerous from this than from other causes. In short there is not a greater enemy to the health & life of man than cold. The Spring & Autumn between the degrees 35 & 50 are the most healthy. Heat & cold act differently in different months. The following is a table of mortality for one year.

	Whole	Boys	Girls	Men	Women	Widowers	Widows
Jan:	142	57					
Feb:	111	46					
March	112						
April	108	—					
May	107	31	29	21			
June	77	21	27	8	11		
Aug:	89	29	20	18	8	5	9
Sept:	130	36	35	12	34	3	10
Oct:	110	43	35	8	13	2	9
Nov:	216	42	34	101	19	5	15
Dec:	134	38	35	30	15	7	9 —

D

Air excessive in its density is hurtful -
Sudden changes from rarity to density & vice versa are very prejudicial
We have then gone thro' the sensible qualities of the atmosphere w^h are heat, cold, Moisture dryness rarity density & Pneumonia Anginosa Pleurisies & Catarrhs are among the diseases most frequently induced by the sensible qualities of the air

The Effects of Wind in producing disease Winds are hot & cold dry & moist. They are dry from the west & moist from the east. The body is immersed within them, Sudden changes from heat to cold more certainly affect the body when accompanied with high winds. They produce certain changes in the mind, as the Sirocco & Samiel winds. They act more powerfully upon invalids than upon healthy people. Not only winds but the absence of them produce disease.

The Effects of the Rarity & Density of the Atmosphere. Air highly rarified produces numerous diseases, great muscular weakness, difficulty of breathing, quickness of pulse profuse sweats, sickness of stomach, sleepiness, an aversion to ardent spirits, & great pain according to Mons Saussure. These effects are attributed to a more rapid combustion of azote or a deficiency of oxygen. D

Baron Humboldt who ascended the highest mountain said it produced hemorrhagy from the nose eyes mouth & by his Eudiometer the oxygen descended to 18 parts in the 100. — Air too dense is very hurtful to asthmatical or consumptive patients. D

Impregnations of the air. We come now to con-

a & putrifying animal or vegetable matter
B ~~Como Miasmatic exhalations act most pow~~-
erfully in the production of disease early in
the evening & in the morning before sun rise, &
soon after combined with cold their power of
producing disease is increased. On what part of
the body do these Miasmata act? I answer in
every part On the stomach & bowels producing
Dysentery, Cholera Morbus & all the intestinal
states of fever & sometimes changing the colour
of the liquor of these parts into black. On the Blood
vessels these Miasmata produce Morbid Excitem'
& the following forms of fever are the result viz
The Y: Fever, the Inflammatory Bilious fever, the
remittent & Intermittent fever the Febricula or
inward fever & These Miasmata act on the Ner-
vous system producing glandular swellings Bu-
boes & They act on the Skin producing Espera
to Carbuncles. They affect the eyes producing Op-
thalmia

sider the impurity of the air as the remote cause of disease. —
1st. Marsh effluvia or as Dr Mitchell has called them Coino
Miasmatic exhalations. For the production of these, ~~two~~ 3 thi-
ngs are necessary; viz heat & moisture; a the Thermometer shd
stand at 80. When the ground is covered with water no ex=
halations can take place. In like manner when the heat and
drought is so great as to dry the earth, no exhalations can take
place; but when there is not a sufficient quantity of rain ~~to~~
or heat either to overflow or dry up the surface of the ground,
then the exhalations are produced. The summer should be
moderately moist to produce miasmata Heavy rains have
sometimes produced miasmata by washing off the green co=
vering that is sometimes found upon stagnant waters and
which prevented the sun from acting upon them without
which the miasmata could not be formed. B These effluvia
arise partly from animals & vegetables, but more gener=
ally from the latter. The following vegetable matters produce
these marsh effluvia viz Putrid Cabbage, potatoes turnips,
peppermint, onions aniseed, carraway seed confined in the
whole of a ship coffee cotton hemp, flax, straw, old books &
old paper money, the timber of an old house, logwoods the

Upon what part of the body do these miasmata act? I answer upon every part

⊙ I ale the intestinal states of fever, & sometimes changing the colour of the liquor of these parts into black

a producing nausea vomiting

b producing Apoplexy, Mania

c producing inflammat.

|| work up in the follow.g forms of fever

d Erysipelas Leprosy – The Colour of the African has been supposed to arise from the same cause

second year after they are built, in consequence of the putrifaction of the bark, green wood confined in cellars, green timber of a ship. Also air stagnating in the whole of a ship & cellars, & stagnated waters when agitated produce miasmata. Fevers are not so often produced by animal as by vegetable effluvia; there are however a few which are produced by the former

2d Human Effluvia. or Idio-miasmatic exhalations of Dr Mitchell. These are produced from want of cleanliness, dead bodies raw hides &c. Miasmata act first upon the Stomach a 2d upon the intestines, producing Cholera Dysentery, &c. 3d upon the Liver, increasing the secretion of bile imparting to it viscidity & acrimony 4th upon the Bloodvessels; producing Yellow Fever, Inflam. Fever Intermittent Remittent, ~~Jail~~, Typhus, or low chronic fever, & Febricula or inward fever Hemorrhages &c. 5th On the Brain, b Kidneys c & Spleen, more particularly this last producing an inflammation or induration in it called Ague cake 6th upon the Nervous system. 7th On the muscles producing convulsions &c. 8th On the Lymphatic system producing dropsy glandular swellings &c. 9th on the eyes producing Opthalmia &c. 10th upon the skin producing Carbuncles eruptions &c. d The human effluvia are of two kinds, from excreted

× Persons long accustomed to these Miasmata are but little affected with them, hence the natives of sickly countries suffer but little or perhaps not at all from the action of the same miasmata wh in new comers produce formidable diseases & Death. The ~~seeds of the disease induced~~ by these Miasmata frequently do nothing more than give a predisposition to disease in one summer & in the next summer acting on this predisposition diseases are produced. The diseases produced by marsh miasmata are not contagious they are incapable of generating themselves. These Miasmata have been carried by the winds 4 Miles

Strange as it may appear it is nevertheless a fact that the existence of these miasma have been called in question, because the Eudiometer does not discover that air impregnated with these, is less pure than air generally is; as well might we deny the existence of a Spirit because we do not see it

*: There is a species of Miasma exhaled from living animals called by Dr Mitchell Idio Miasmatic exhalation. The Jail Fever is produced by it Plague is sometimes produced by it, & in some instances the scurvy. Dysentery not unfrequently proceeds from it. ~~Influenza & Catarrh~~

#it is a disease of winter & of Cold Countries; it seldom requires or admits of Vs.

& secreted matter). Miasmata may exist in the body 20 or 30 days without producing disease sometimes even 6 months.* Effluvia are more injurious to health in the morning & evening than in the middle of the day. They are a source always of disease, & are assisted by the following circumstances. Uncleanliness, confinement in large crowds, low vapid vegetable diet, scanty & putrified animal diet, mixing of strangers together, great prostration & grief of mind; all these predispose to disease. Cold weather is favourable to the spreading of Contagious diseases in consequence of the houses being shut up very close in order to keep the cold out.* Woollen & other cloaths spread & retain contagion, wood also. Walls if white washed will not retain the effluvia of Typhus fever Effluvia act more powerfully upon the system when in a debilitated state. Pregnant women often escape the Y: Fever in consequence of the stimulus of distention from pregnancy, also persons affected with running sores escape it. Persons are capable of affecting themselves with miasmata. Persons highly charged with miasmata may affect others without being affected themselves —

<u>Human Effluvia</u> affect 1st The Bloodvessels. 2dly The

× It is difficult to tell what it is in the air wh constitutes an inflammatory constitution of the Atmosphere but certain I am such inflammatory constitution does often exist - I once thought it depended on the air being super oxygenated, but late experiments of the Chemists have proved that the proportion of Oxygen in the air is the same when the inflammatory constitution prevails as at other times

⊙ The blood vessels being affected with but a feeble degree of action

B There are 2 ~~Species~~ of Contagion and ~~shall~~ say hereafter ~~the one from a secreted~~ & the other ~~from an excreted matter~~. — From all the excretions but particularly the perspirable matter the Idio Miasmata proceed

Brain with delirium 3d The glands 4th Produce Dysentery 5th Intermittent & Malignant fevers. 6th Scurvy & Catarrh and lastly influenza. Human effluvia are often combined w.th marsh miasmata in producing bilious fevers. These are seldom conveyed more than 10 or 12 feet from the body.* No climate or country necessarily unhealthy; for fevers depending upon both the human & marsh effluvia are owing entirely to the carelessness of men. Were we to take the necessary precautions to drain our meadows of their impure stagnant waters, to remove all putrifying matter from around us & keep our persons &c clean these mortal distempers would cease to affect the human race. They are like the vermin sent as a reward for our laziness & folly. The Jail fever is rare in the U. States; because there is not so much poverty & filth among our citizens, for these are the causes which give rise to this fever in other places.

The Jail fever differs from the bilious or Yellow fever in the following particulars. 1st It comes on in cold weather & is not affected by rain or frost. 2d It most frequently attacks the weak & infirm 3d The Pulse is Typhoid. 4th It continues for 20 or 30 days. 5th It B is propogated in a different manner by excretion & perspiration.

The Yellow or Bilious fever is distinguished by the follow.g

3d × The Matter wh produce Influenza spreads with the intercourse of the Citizens this I infer from the sudden increase of Patients in this disease — I infer that Influenza does not spread by contagion because it has never been confined to any one spot nor could any place be traced as the place of its origin

particulars. 1st By its attacking in warm weather 2d By coming on suddenly. 3d By attacking principally the young & robust 4th By remissions & intermissions. 5th By the increased secretion of bile 6th By its being of a shorter duration as 3, 5 or 7 days; but it now & then runs on in a chronic form from 20 to 25 days. 7th By its being destroyed by cold & heavy rains The human or Idio-miasmatic exhalations & the marsh or Coino miasmatic exhalations affect the bloodvessels in all the 7 forms of fever viz The Bilious, mild bilious, Remitting intermitting, Typhus Typhoid & Febricula. X

43d Source of Disease. Phlogiston or air rendered impure by respiration &c Persons affected with Phtheris are greatly oppressed by this air. 2d Air is unwholesome when mixed with fumes of sulphur or charcoal. 3d Air of certain manufactories as lead Arsenic &c when they are volatilized. 4th After earthquakes the air has been observed to be extremely disagreeable especially after one that happened in Jamaica on the 17th of June 1692. 5th The Sirocco & Samoiel winds. 6th Winds that have passed over a hot sandy country. 7th The air of certain mines. If birds fly over the lead mines of Scotland, they are immediately killed on the days of work; but on a Sunday

*: The Atmosphere, impure exhalations from innumerable sources & the increased heat together with the vegetables being forced by manure & thus putrifying sooner are the causes of cities being more unhealthy - Country people are more predisposed to Dysentery from their rapid vegetable diet - Bilious fever Typhus Mitior Consumption &c are more frequently the products of vitiated city air than of country air

Nature of the soil of either T or Country

+ & the houses to check the Miasmata

when the labourers rest, they may fly over with impunity. — Hence we may learn an important lesson, that a remote cause can seldom be able to produce a disease without an exciting cause; & in the Y: Fever, I have never seen a case in which I could not trace the disease to some cause or other wh excited it into action. After having thus treated of the impregnations of the air & their influence over health we will proceed to mention the effects of — Contagious Diseases & Contagion Laws of Epidemics p: 190

Situation over Health.

New countries are generally healthy until the trees which exclude the action of the sun are partially removed. From the time of clearing until cultivation takes place it is sickly. The wood cutters in the cedar swamps of Delaware & Carolina enjoy good health when the trees are standing, but after they are cut down & begin to putrify by the solar influence, health abandons the labourers. Towns are more sickly than the Country.* It has been computed that 3 or 4 die in towns for one in the country. # Sandy soils are unhealthy. Nicinity of Towns or Country, or marshy grounds one great source of disease. Nicinity to desarts & ponds; these ~~but~~ may be remedied by having trees planted ~~around~~ betwe in them. ✕ A mountainous more healthy than a low situation. But there is

* A Collision of air is unhealthy, as the air upon the sea shore, particularly to Asthma ✠

† such as green wood

‡ when recently taken from the ground

⊕ Hence the wealthy Romans never occupied a house for one year after it was built — A house is rendered unhealthy from age for the wood when old exhales a vapour which produces Intermittents from being too much confined by trees, & from being too hot or too cold. —

⊙ From the water used families are sometimes rendered unhealthy

✠ P Consumptn & Rheum: perhaps owing to the mixture of land & sea airs

one exception to this, viz. 2 When the Miasmata arise from the bottom & neighbourhood.* Other local circumstances affect the healthiness of a situation. viz Residence in cellars more unhealthy than in rooms above ground, in hospitals: Houses situated so as not to receive the action of the sun on every part, are not so healthy as those built in a contrary manner. Dwelling houses often a source of disease from the new materials of which it is made.† This is prevented by previously soaking the timber in water, by which the sap is discharged; also by being built with stone;# by vapours from new plaister & paint.⊙ by moisture of Cellars; by small smoaky rooms want of cleanliness &c.—⊙

I knew two cases of Malignant fever which proved fatal near Zachery's court in this City & none of the neighbours affected with it. 2° I also knew 9 heads of families die of this disease in Arch St. when none of the neighbours were the least affected. These probably originated from something impure in the Cellars, or from some other local cause. 3° and lastly, a fact more proper to our subject related by van Swieten viz that the whole of the Students together with the Master of a certain University were diseased when none of

+ On rotten vegetables near the University —

the neighbours were the least affected. This probably arose from some exhalations from privies & Cellars, or some other local cause.

Change of Situation over health. 1st Persons changing a cold for a warm climate are frequently affected with fevers. 2° Persons leaving a sickly neighbourhood & coming to a City are affected in the same manner. The miasmata in this case being previously received into the system, are excited into action, in consequence of the many exciting causes in a city, & the system thereby becomes diseased. 3° Old people leaving a cold & entering a warm climate often become more healthy whilst the same change of climate in Young people would produce inflammatory Complaints. 4th Removals from marshy to airy dry situations often contribute to health; except in old people who often suffer by this change, since it deprives them of a customary stimulus, viz the Marsh Miasmata which on a former occasion were said to be the support in part of old age, but the destruction of youth & the middle aged. 5th Those who have made long sea voyages are frequently affected with Catarrh on a near approach to land, in consequence of a mixture of the land & sea airs. (case of a Sea Captn with whom Dr Rush croped the Atlantic) 6th I have been at much trouble in trying to find out whether

* Excitement & excitability were either so suffocated that they could not act, or were suspended in this case

Thunder & Lightning independent of the change of the air, had any influence over the system in producing disease; but have not been able to collect any thing certain on this subject. I knew a lady who could tell the approach of a thunder storm by a giddiness & head ache which she always experienced some time before, & which continued until the storm was over. Some persons appear to be born with a fear of thunder. A lady in this City some years ago, in consequence of her dread of thunder would during the continuance of a thunder storm shut herself up in a dark room & drink an immense quantity of Spirit without being the least intoxicated; at other times she did not discover the least attachment for them. *

Leeches appear to be sensible of the change of weather by their motions. Mr Cooper informed me, that he could always foretel the approach of thunder by certain motions made by the leeches which he kept in his house. Y^e Sound appears to affect some persons. A lady in this City has always sweats chills, trembling, & the appearance of great terror on hearing the noise produced by a carriage drawn over the pavements of the streets. Deafness has been induced in two cases to my knowledge, in consequence of the firing of Cannons & [illegible]

* Darkness reduces the force & for a time the frequency of the Pulse
# It has been asserted that 3/4 of mankind die in the night
# It affects fevers
# I have seen it in 2 cases
© In cold countries the reflexion of the sun upon the snow proves very hurtful to the eyes —

death. Birds have dropped dead from the firing of cannon upon the deck of a ship. We will now consider the effects of the heavenly bodies upon health, and

1st Of the Sun. We have already considered in what manner the heat of this body, by warming the air operates on the system. We will now consider its light, absence &c. An excess of solar light sometimes produces blindness & inflammation; while its absence produces temporary blindness from a want of Stimuli, both which are called Nyctalopia whether it depends upon an abundance or deficiency of light. Even the momentary absence of the sun has produced alarming symptoms in the Yellow Fever*. Most diseases attack at night; & death most frequently occurs at that time#. may not this be owing to the absence of the Sun?

2d Of the Moon. The influence of the Moon is felt by all animated Nature, even the tides are owing to its influence. vegetation is measurably under it. Death occurs more frequently at the full & change of the Moon than at any other time of it. The Paroxysms of many diseases appear to be influenced by the Moon‡. Dr. Mosely relates the case of a British Officer who was regularly attacked with hemoptysis about the full or change of the moon, & at no other time#. I

* It affects the tranquility of the mind, hence a Lady observed her husband to be more petulant on the full of the moon. —

know a person affected with the Gout ~~in~~ this place, always to have the inflammatory paroxysm on the full or change of the moon. The Moon affects the Nervous System, also madness, hence the term Lunacy. Epilepsies & asthmas appear to be under the influence of the Moon. + Parturition appears to be hastened by the full. Worms are more troublesome in the bowels of children at the full & change than at any other time. Suicide appears to take place more generally about the full of the moon than at any other time. Hypochondriac & Epileptic patients appear to be very much influenced by the full & change of the Moon. Dr. Haller speaks of a person who felt the calculus in the Bladder more sensibly at the change of the Moon than at any other time. Chronic diseases yield less to the influence of the moon than Acute - perhaps from the operation of the Medicine keeping up excitement. - Eclipses of the Sun & Moon have great influence over the system. During the eclipse of the sun on the 16th June 1806 the Lunatics in the Hospital were remarkably silent for three hours Bera died at the instant of ~~the~~ eclipse of the sun. A more remarkable fact is the following, 24 British Soldiers were attacked at the moment of an Eclipse with Intermittents. If the eclipse of the 16th June had appeared in the Autumn when

* Dr Darwin has remarked that Apoplexies & Palsies are more frequent at the Equinoxes

persons were predisposed to disease, it is highly probable that diseases would have been immediately produced. The diurnal rotation of the earth appears to have great influence in regulating diseases & probably may sometimes induce them. The pulse varies with the different changes occasioned by the earths revolution; for instance it is slow in the morning, quicker at noon & slower again at night &c. Dr Darwin has happily called the evening the autumn of the day*. It is important to keep these changes in mind, since they will be of great practical use. — * aliment & Drink p: 105

Of Contagious Diseases.

These were formerly thought to be very numerous; but they are now known to be much more limited. They are divided into Epidemic, Endemic, Sporadic & Intercurrent. Contagious diseases are received into the system, by means of the Lungs, Saliva, Nerves, & Skin. They are sometimes called Specific Contagions, from particular parts of the system being affected only, as the Small pox, chicken pox, Hooping cough, & measles &c. The Lues venerea, Itch, Ringworms, & diseases of the skin differ from the small pox &c. in being communicated only by contact; also in their originating from a fixed & the small pox &c. from a vola-

* I exclude from the order of Epidemics all the diseases produced by Idio Miasmatic exhalations The Jail fever never spreads as an Epidemic

tile matter. Specific contagious diseases act without an exciting cause whilst the Yellow fever & such like diseases wh. I only consider as Endemics scarcely ever take place without an exciting cause.

Endemic diseases are such as affect many people together in the same place, or country, & originate from some local cause. – Notwithstanding what has been said to the contrary I believe the Y. Fever to be an endemic of the U. States as well as of the W. Indies. – Sporadic diseases are such as affect a few only at the same place & time

Intercurrent diseases are such as affect a few persons here & there without any regard to place or time.

Epidemic diseases are such as attack sometimes in separating parties; but more generally with great pomp & violence. – They attack such an immense number of people at the same place and time, as if they were going to destroy the human race; but they can be prevented, repelled & vanquished by the power of medicine. – Epidemic diseases arise altogether & invariably from the insensible & foreign matters in the Atmosphere produced by Cosmo-miasmatic exhalations, & are small Pox influenza, Cynanche &c. The Cynanche

Maligna, Scarlatina & influenza may be properly called diseases of the Atmosphere. * p. 92 I will now deliver a few laws to which Epidemics are subjected. —

1st. They are all influenced by the sensible qualities of the air, the influenza excepted. The Small pox for instance, is more violent, & the Measles & Scarlatina anginosa still more so in the summer than in any other season.

2d They are influenced by provisions & drinks of the season; while fruits & vegetables for instance, are used the disease is thrown upon the intestines. —

3d. No two epidemics produced by different causes & of unequal force can affect the system at the same time. I would as soon believe that a horse could trot & pace at the same time. —

4th When 2, 3, or 4 Epidemics appear at the same time and place they all blend their symptoms together & one of them predominates over the rest & appears to make them pay homage to it, by wearing its livery: for there appears to be a monarch in diseases. Therefore Gent: take care in all your prescriptions to have an eye to the reigning Epidemic. Hence also we see the reason why broken legs or any other external cause produce Malignant fever, when the system is previously disposed to it. A young man left this city in time of the Y. Fever to avoid it, & on his

way to Germantown was thrown from his horse & had his leg broken, he was very soon seized with a black vomit & in 5 days died. —

5th The more powerful & reigning epidemics not only exact homage from the weaker; but chase them away. Dr Sydenham tells us that the Plague in London in 1665 drove away all other diseases from the City. —

6th The Tyranny of great epidemics is lessened before their departure. Hence the small pox drove the Plage from Constantinople; & the measles chased away the small pox from this City. The first appearance of an Epidemic may be compared to a savage that attacks & destroys men women & children; but when retiring, to a civilized corps of men, who spare the blood of the innocent. It is in this stage only that other diseases can take place. —

7th They appear in a variety of forms & characters, 1st as in the malignant bilious, remitting inflammatory intermitting fevers &c, in the three different forms of small pox. viz that with & without pustules & the confluent. 2d They appear in different forms in different years & with different prognosis under different circumstances. 3d The same causes sometimes produce diseases of different forms & appearances; but still disease is an unit. —

4 & 8th Epidemics vary with respect to their violence in different

* The same Epidemic appears sometimes in different parts of a Country under different forms In one place it will appear perhaps in the form of Y: Fever, in another of remitting fever, or common bilious autumnal fever - In a third part of the country it will probably assume the shape of a bilious Colic or Dysentery - The same Epidemic sometimes affects different people of the same City, from a difference of Temperament &c Thus in persons of the Sanguineous Temp: for instance, it will appear a violent fever - In persons of the Alimentary Temp: it will fall with all its force on the bowels &

This comes in in the next page

They are perpetually varying & consequently no uniform mode of treatment is to be pursued, their changes must be attentively watched & our remedies adapted accordingly - This compels a Physician to be a student of Medicine as long as he lives The same remedies which cure the same Epidemic one year will kill the next. Bleeding will kill one year & cure the next

seasons & persons & even in different days. —

5 9th Some epidemics require exciting causes, whilst others such as the Small Pox &c do not. —

6 10th They come on sometimes with great force & violence & suddenly vanish in consequence of frosts & great rains washing away the cause that produced them. —

7 11th They differ in different parts of the same country. *

8 12th They are often limited to small bounds. —

9 13th They affect people of one nation or colour often, whilst others of a different colour, & strangers escape. In 1793. the French men & negroes escaped the fever of this City. — *

10 14th They sometimes attack persons of a particular age. Moses speaks of a Plague that carried off many children only. —

11 15th They sometimes affect persons of a particular Sex only. A plague in Italy once carried off 6000 men & scarcely a woman. —

12 16th They sometimes affect persons of particular rank only. — In france 1757 the dysentery attacked the rich whilst the plague in 1758 attacked none but the poor. —

13 17th They sometimes affect members of the same communities & families only from the tamement of Diet Predisposition &c

14 18th They sometimes affect all nations, all colours, all ages all sexes at the same time & place. — #

The white part of bones changed to a Yellow Colour in the Y. Fever of Boston

⊙ The Pleurisies wh have preceded & followed the Y Fever here have constantly required more copious V.S. & purging than ordinary —

15th They sometimes affect the human species only. —

16th They sometimes affect the human species together with cats, horses, dogs, cows, sheep, fish, & all the others of the brute creation.

17th & Lastly it must be observed that different remedies must be used in the same epidemic, in different seasons & under different Circumstances. — # See one leaf back

Of the different Phenomena that have been known to precede & accompany Epidemics. —

1st Hot cold dry & wet windy weather with rains more frequent sometimes precede an Epidemic. —

2d Weather perfectly calm, so much so that the leaves of trees were not seen to move & which Authors have called "sine aura". Dr. Wilson of Morris Town relates the case of an Epidemic which was preceded by a long calm, & smoky vapour. — #

3d Diseases which precede Epidemics are more violent than at any other time. The diseases also which follow always partake of a more ~~violent~~ inflammatory form, or are more chronic. ⊙

4th Cats appear to be affected in a peculiar manner previous to the appearance of an epidemic. Birds have been observed to be more scarce, & even die in their cages during the continuance of an Epidemic. Insects are more

* at one ~~season~~ the pulse was uniformly preternaturally frequent. – There is langour sicknesp at stomach &c. — disposition to sweat

* requires the Coperation of Miasmata —

numerous previous to, or during the time of Epidemics; but the house fly is an exception to this, for at such times they mostly disappear. — Musquetoes never fail to attend Pestilence

5th Many Trees emit a peculiar disagreeable smell, prematurely drop their leaves & sometimes die.

6th The pulse is preternaturally slow ~~or frequent~~ & weak during the continuance of an Epidemic. Persons who were in good health became sick in consequence of it, but sometimes it happens that others who were debilitated previous to an Epidemic have become quite healthy in consequence of one. The miasmata in these instances excited them up to the healthy point. Oysters & fish live a much shorter time during an Epidemic. The Clouds affected the Patients in the Yellow Fever at Charleston by obscuring the sun. Whence these changes? Nineteen out of twenty diseases are derived from the changes of the atmosphere. If Epidemics are changed by so many circumstances, they should be observed with a spy glass. — & Prevention of Epidemics —

Some persons have supposed Epidemics to be a curse or a judgment upon them — Reason not only rejects but loaths such nonsense. Let old women & children who assemble around a kitchen fire to hear the tales of Fairies & Hobgoblins, believe this.

* Too much nourishment disposes to all the diseases of Plethora as Apoplexy &c — paves the way to indigestion & dyspepsia & lays the foundation for 2 bile practices viz Drinking or using Tobacco

The quantity of meat ought be regulated by the quality. The use of aliment is not only to nourish the body, but also acts as a Stimulant. —

⊙ Persons accustomed to a definite quantity become sick when increased or diminished

Thus Gentlemen I have delivered to you such facts as I have acquired from observation & experience, during my whole life, & think it proper here to observe, that it is the duty of Physicians to be students as long as they live. — See situation over health p 99

Aliments & Drinks as productive of disease. This is an important part of our Pathology. I have said before that 9/10 of all the diseases are received into the system by means of the mouth & feet. —

Aliments produce disease by their quantity & quality & 1st Of the Quantity. When great, disease is produced by an over distention of the Stomach & by affording too much nourishment to the system.* The effects of too much nourishment will be in proportion to the exercise taken.* A labourer can take much more food with impunity than the idle & sedentary. The quantity of food necessary for a labourer is about 8 ℔; but for a sedentary man from 4 to 6 ℔ is sufficient.# Chardin tells us of a Persian, who would eat 35 ℔ of water melon a day, without injury.© Lewis Cornaro limited himself to 12 ℥ of solid food & 13 ℥ of drink per day. — By adding ℔2 he lost his health

The diseases which arise from an insufficiency of food affect chiefly children, slaves, & monks, who thro' a false sense

* Boarding Schools is another great source of disease

Stimulus of the desire of food & of life acting upon the accumulated excitability system causes the increase of strength —

of religion deny themselves the necessary support of life. Children at the breast are often diseased from the mothers not affording a sufficient quantity of milk; since they are unable to live upon any other food, Diarrhoea Dysentery &c follow. *

Slaves are often diseased in consequence of having small allowances, & being made to labour hard by cruel & unthinking Masters. Hunger appears to increase the Strength of some animals. It is said to increase the strength of the Lion very much; ~~which devours 20 lbs of flesh a day when he can get it~~ # Hunger is said to have great effects upon the temper. Hence it is said to break down stone walls &c before it. It was in consequence of the strength & furiousness of temper, that was supposed to follow hunger, that the Duke of Marlborough used to say he preferred Scotchmen when hungry, Englishmen when full & Irishmen when drunk, for an immediate engagement

Famine increases the excitability of the system, excites pain in the stomach, renders the secretions & excretions acid, offensive breath & hemorrhagy from the stomach, delirium & death close the scene. —

Dr Franklin used to relate the case of a Benja Jay of this state who attempted in imitation of our Saviour to fast 40 days. During this time the Dr visited him & found his

⁂ Lice, Leprosy, Itch Diarrhoea Dysentery &
& old animals more than young
⁂ Men who live on wild animals have less strength but more activity than those who live on tame

breath so acid, that upon shaking hands with him it drew tears from his eyes. —

2d Of the Quality of aliments. These are animal & vegetable. 1st Of animal aliments, which are the following

Fish were supposed to be the first animal food of man — A diet solely of fish, ~~is injurious to health~~ produces *. Food wholly animal produces fœtid sweats, scurvy &c & the animal food of carnivorous animals produces this effect in a much greater degree than when it is from ~~granivorous~~ Herbivorous animals. ‡ a great difference between the effect of wild & domestic animals, the former being much the most wholesome. © The Indians who live altogether upon the wild are exempted from almost all the diseases to which we are subjected. — They are however, not so strong, but more active than those who live upon domestic animals. —

Animal food produces disease when much exercised before killed; an instance of this occurred some years ago. A farmer killed a beef after working him very hard, & sent it to market — The result was that out of 15 persons who ate of it 14 died. Animal food produces disease when putrid. —

2d Of Vegetable aliments. Notwithstanding persons in warm climates live upon them; yet in other climates they

*Oysters when overdone have produced Colic, at times death - Milk in its simple state disagrees with many stomachs ~~a Supper~~ of toasted cheese has produced heartburn & Apoplexy & however taken, it always disposes to costiveness - Bread half baked produces Colic &

Beans are said to be flatulent - Cabbage lead of digestion

Living on vegetable food however increases the clearness of the understanding - Sir I Newton lived on bread & water while he was writing his essay on Optics

produce disease. — A diet wholly vegetable produces Diarrhoa, Dysentery, Dropsy, Dyspepsia, costiveness, a disposition to Gout, lessens the heat of the human body, impairs the venereal appetite, lessens the size of the human body &c. Some are supposed to act specifically on the system as beans, which produce flatulency, hence the reason why Pythagoras forbid the use of them at his school. Oats are said to produce cutaneous diseases & Chestnuts when green are said to dispose to mental debility. Many other circumstances independant of the quality & quantity of food, influence their effects upon the system.

1st The preparations of Aliments in Cooking materially affect their digestibility. — 2d Food when taken into the Stomach without being sufficiently masticated, produce dyspepsia &c.

3d Too great intervals between meals disorder the Stomach. — This should be avoided by carrying a little gingerbread or biscuit which should be eaten between meals. —

4th Exercise or Rest influence the Food in the Stomach, the former rendering animal food harmless, whilst a vegetable diet is more suitable to the latter. Some Philosophers of late have ventured to foretell that vegetable aliment will in time become the only food of the human race. —

5th Eating too much after fasting is a great source of disease. In a convalescent state the most dangerous relapses & even Death are brought on

by eating too much or taking a small quantity of Animal food after having been restricted to a low vegetable diet. This is one of the greatest sources of unsuccessful practice. When families in Europe travel for health, they are sometimes attended by a Physician, who regulates their diet, drink, dress &c & the benefit derived from such a custom is considerable. —

6th The sudden change from vegetable to animal diet or vice versa is very injurious to health. —

7th An improper mixture of aliments is likewise very prejudicial to health (see Inquiries vol 1) However it is best to advise patients labouring under chronic diseases to eat of one dish only at a meal.

8th Food taken into the Stomach too hot or too cold produces an inflammation of that organ &c Mr Reid died at New York in consequence of eating ice creams. —

9th Novelty in articles of diet often produces disease & that too when the new diet is taken in small quantities. Watermelons cucumbers ~~peaches~~ &c are not received into the Stomach in the beginning of their season without producing some unpleasant symptoms; & sometimes disease. It appears in this case that the Stomach forgets her old companions, but upon recognising them soon renews her cordiality. The Stomach sometimes remembers her enemies for a long time & scarcely ever becomes reconciled to them; Some years ago a single boiled chestnut produced a vomiting in me owing to a great sickness I experienced from them when very young. —

*. The first mouthful of such victuals takes away the appetite

Dr Bond this Lady died for this Cause

10th Food may remain a long time undigested in the Stomach before it shews its pernicious effects. I once knew a Lady to be made sick not until the third day after taking a small quantity of roasted cheese into the Stomach. I gave her an Emetic which by discharging the offending matter soon relieved her. Dr Haller says he has known food remain in the Stomach from 1 week to 7 Months, previous to its producing disease. Hence Gent: the necessity of enquiring into our patients food, for days, weeks, & even months & perhaps longer previous to the origin of the disease.

11th Disease may be brought on by eating food cooked in improper vessels, as Copper Lead &c.* Since the introduction of Silver & Iron, stomach complaints are very much diminished in number. Also by Filth & extraneous bodies getting into the vessels used to convey food into the system. I once knew an instance of a whole family becoming sick in consequence of eating a baron of milk, into which a spider had fallen. –

12th Animal food is sometimes rendered unhealthy fm a peculiarity of diet on which this animal has subsisted for some time previous to its being killed for our food. Some families in Philadelphia were once diseased from eating a parcel of Pheasants which were brought to market. The Physicians universally attributed this complaint to the cause I have mentioned; & these animals were condemned to be improper

& poisonous. The cause of this poison, however, was from the Pheasants eating a particular fruit called Laurel berry, which is the only food they can get in the winter, & is known to give a temporary poison to the flesh of these animals as well as to the Deer & some few others. I once knew 60 Students at Princeton College to be affected with a Diarrhoea from eating a Pye made of Pidgeons which had chiefly subsisted on poke berries —

13" Salt diet when well proportioned to the state of the system is not unwholesome. The reason that children living in the country are less affected with Cholera ~~Morbus~~ Infantum than those of the town is owing I believe to the salt diet used by the former, ~~while the peculiar situation of the latter hinders them from any but fresh food~~. It were to be wished that our farmers would live on fresh meat in winter & on salt meat in the summer

14th There is an Idiosyncrasy which renders aliments wholesome or unwholesome to particular persons, & this Idiosyncrasy is Hereditary. Many people cant eat fish &c

Of Condiments as productive of disease. These are Salt, Vinegar Mustard sugar & Spices. —

1" Salt is so universal & useful an article of diet that when it could not be obtained, ashes & alkalies were frequently known to be its substitutes. Some nations as the Brazilians & our Indians have never seen salt, but they

use in its stead some alkaline substance. —

2d Vinegar is both wholesome & proper in small quantities. But when taken in large quantities produce dyspepsia Gastrodynia, Cholic, a disposition to Gout & a variety of other distressing complaints. In 1770 it was said to take down the fat of the system & induce leanness. Some of our Ladies then used it very profusely & injured their constitutions materially by it. —

3d Mustard. The same may be said of this as of vinegar. I once had a Gentleman & Lady with a very obstinate Gastrodynia under my care, & happening to dine with them observed that they used mustard & vinegar very profusely. I advised them to lessen the quantity of these two articles. They did so & soon recovered. Patients often suffer from large quantities or particular qualities of food. Dr Zimmerman informs us that Frederick II King of Prussia fell a victim to his ungovernable appetite. He was an enormous glutton; would eat times a day & took by way of a relish between breakfast & dinner a large Eel pye. He would never believe that he ate too much & when spoken to about it would always say that he only ate a sufficient quantity to keep soul and body together. He was remarkably fond of condiments & the same Dr tells us that at 72 years of age his Kitchen resembled an apothecary's shop more than any thing else. —

4th Sugar notwithstanding it is the most grateful & nourishing of all condiments when taken in moderate quantities, yet when taken to an excess produces dyspepsia &c. Honey & Molasses when taken in excess also produces disease. —

5th Spices when taken in small quantities assist digestion; but when taken in large quantities have a contrary effect. —

We will now turn our attention to the effects of Tea & Coffee. A revolution has been made in the customs, manners &c of every nation since the introduction of these articles. —

Tea principally injures by being taken too strong, hence kitchen women are more affected by it than their mistresses. — Tea will sometimes bring on & sometimes prevent sleep; if the system be below the sleeping point, then its stimulus may induce sleep; but if the system be excited above the sleeping point, it prevents sleep. Tea produces nervous complaints such as Hysteria &c when taken very strong and in large quantities; also Gout. Hence the reason why women are more affected with gout than men, as I shall shew you hereafter. —

Coffee is a gentle stimulus & will sometimes produce all the effects of Ardent Spirits. I knew a Physician in this City who always previous to his going out on a visit to his patients in the cold drank a pint of hot coffee. It sometimes produces vertigo & other diseases; in consequence of which I always forbid its use in any one of them. Neither tea or

+ Pleurisy, Inflammat^n of the Stomach Liver &c

coffee are nourishing, they only become so by the sugar and milk taken along with them.—

Of Drinks, as productive of disease. These are Water, Wine, Beer, Cider, & Ardent Spirits.—

1 Water is the most wholesome & pure of all drinks; but it is sometimes like the rest the cause of disease. It is the cause of disease 1st By its sensible qualities Cold water injures the tone of the stomach (that is when very cold) by its sedative effects.— When the system is very much heated, violent spasms of the Stomach arise from drinking very cold water†. The teeth are peculiarly affected by cold water†. Mr Spence a dentist in this City, informed me that he drew 3 teeth in summer for one in winter wh. may be ascribed to this cause. Water moderately warmed or suffered to stand half an hour in the air, never produces those dreadful symptoms, which are sometimes its consequences when taken very cold. It also quenches thirst better than when it is very cold; because this last abstracting so much the heat of the Stomach leaves the system debilitated; in consequence of which the system reacts so powerfully, that a fever is produced & water is again required to compose this fever; whereas water not so very cold produces no such effects, since the system has not

+ as Cinn – this produces vomit & Purg.

produces Dyspepsia

to react & therefore no fever is produced.—

2° By being mixed with unhealthy particles. Water in Cities is generally unwholesome for the following reason, that the filth in necessaries which are dug 30 or 40 feet below the surface of the earth generally affect the pump water at the distance of several feet from them. It was on this account that Dr Franklin proposed supplying the City with water from the Schuylkill. Ice in water, beer, cider & punch, will produce but not in wine & ardent Spirits. I have known a case of death to be brought on by drinking Ice punch. General Wayne was affected in 1792 by 2 large draughts of Ice punch. Water most wholesome when running over beds of sand & Gravel.—

3° By the quantity & time at which it is taken. Cold water when taken at improper times injures the system. The same may be said of it when taken in large quantities. Many people injure the system by taking large draughts of water early in the morning or late in the evening just before going to bed. This practice comes on by intemperance & is then kept up by habit. It is however a pernicious one, as also that of drinking between meals. The Indians scarcely ever drink water until the evening. Large drinkers of water are generally great gluttons

* I have elsewhere said that I wished my Pupils to be distinguished by their knowledge of & attention to the Pulse. I here say I wish them likewise to be distinguished by their disuse of ardent Spts. If any of you ever see a Physician with a red Nose, or trembling hands, or see him in a tavern drinking Brandy &c who calls himself my disciple, contradict him, I disown him – he is not my disciple but a Brunonian – They shd not be used as medicines lest our patients contract ~~a liking~~ an appetite for these detestable articles

2d Wine has a tendency to produce Gout in the extremities. Here I must observe that gout in the extremities is always produced by fermented or spirituous liquors. Gout may be induced in the stomach without them; but I never knew a case of gout in the extremities except in persons who had been accustomed to those drinks. Wine produces gout more readily in warm than in cold climates & has a tendency to induce costiveness when taken after supper. It is more wholesome when taken with food than without it. —

3° Beer like wine when taken in large quantities disposes to Gout & sometimes to Rheumatism. It has been said to produce gravel: if so it is in consequence of its acidity. Dr Haller said that out of one hundred patients who died of Gravel, not one upon examination had been found to use beer. —

4" Cider may be drank with impunity by labouring persons; but it is productive of Gout & Rheumatism in the sedentary. I knew a Gentleman & Lady in whom the gout was always excited by it. The fruit from which it is obtained is often difficult of digestion & in some stomachs productive of the same complaints If a red hot iron be plunged into Cider & suffered to cool its tendency to produce gout & rheumatism is entirely destroyed. The iron acts by blunting the acid

5" Ardent Spirits as a drink & source of disease See Medical Inquiries Vol: It may be proper however to observe here that their effects are experienced on the nerves blood vessels Lymphatics brain &c. also upon the moral faculty ※

Drugs. as inducing disease. Who would believe that the

* The very texture of the body is altered by the nature of Clothing. In speaking of fashions I am sorry that our Ladies have followed the dress of France — hence they are seen with their Petticoats or no Petticoats at all bare elbows & arms naked bosoms & & the men in imitation are found wearing great bulging stiff neck clothes in the Month of July. The conduct of the female sex in exposing their skin to our sex shews in a peculiar manner the depravity of human nature — The Mother Eve was naked & not ashamed because she was innocent but our Ladies go naked & are not ashamed — tho' not always because they are innocent

Two thirds of the diseases of Autumn are occasioned by too thin clothing. Clothing ought be changed with every change of the weather

dress first used to cover our nakedness, after our fall from primeval innocence would be so used as in time to constitute a part of our destruction. The diseases from dress arise from the quantity Fashion & Quality of Our Cloaths.—

1" Dress too heavy in warm weather predisposes to disease — ✝

2° Fashion is often a source of disease, By dressing too thin thick or tight. I knew a Lady who fainted immediately after she was dressed to go to a tea party from being laced too tight in her stays.— I believe a great many diseases of the brain are brought on by tight cravats, shirt collars &c Garters by preventing the free return of blood upwards, cause large knees, Anasarcous legs &c. —✱

3° Quality of Cloathing has a great influence over the system. Woollen or cotton clothing is best next the skin. Woollen cloaths have many advantages when worn next the skin. 1" They keep up a gentle perspiration. 2° When wet they are not so disagreeable, so cold, or so productive of disease. 3° They may be worn any length of time next the skin, without producing vermin, provided the other cloathing be kept clean. After having considered the diseases of dresses let us next consider the dresses of diseases. 1" Hair powder is a dress of disease, as it was first put on the head in Poland, to prevent the disease Plica Polonica. 2° Patches in the face were introduced by some drunkard to hide the pimples of his part. 3° Neck cloths were first introduced by Henry the to hide the deformity occasioned by the Scrophula. 4" Boots were first introduced by Charles 1st to hide the deformity of his legs.—

Poisons are of a relative nature, from the part they affect (as the vipers poison when swallowed is innocent). Some substances are poisonous for particular Animals while they are food for others; or they are poisons to an animal in one state of the system; while in another state of the system & to the same animal they are innocent. Poisons are such substances wh. when taken into the system produce disease or death, & that they act relatively is proved by the following fact. The venom of a viper has been swallowed without having any effect; but when taken into the blood vessels it immediately kills. Poisons are only so from their quantity. A small dose of Opium is an agreeable stimulus; but if taken largely kills. Poisons are taken from either the animal, vegetable, Mineral, or Orial Kingdom. (It belongs however to Natural history to point out the different poisons. It is my province only to explain the manner in which they operate). Poisons like miasmata act by producing local inflammation. The bite of a spider does not kill by its poisonous quality; but by inducing morbid excitement, inflammation &c & then bringing the rest of the system into sympathy with the part affected. –

2d In the Vegetable Kingdom we have poisons as Nicotiana, cicuta, hyosciamus, digitalis, Lauro cerasus, datura Stramonium, monkshood, dropwort, & Buckwheat so non-

They produce in parts whose motions are essential to life & inability to perform those motions, & thus death. –

⁂ They act on different parts & are fatal in proportion to the importance of the part affected

⊙ When they act on the Brain & produce death they are taken in by the mouth & destroy the excitement of the Brain. –

+ in wh. they seldom prove fatal. this shews the independance of the mind with the body & that they act on the body by juxtaposition

rishing to man, is a poison to some animals, Others are dep dangerous as the cashew nut, which acts only upon the skin. —

3° Mineral poisons are Arsenic &c.

4th Aerial are aerial acid, naptho samoiel & samoon winds, & the different kinds of air unfit for respiration.

Poisons have been supposed to act by destroying a certain something called the living principle; But since we have denied the existence of such a principle; it becomes us to account for its operation in another way. We said that the functions of the system were kept up by certain stimuli acting thereon. In short Life is a forced state, & consequently the way we account for the operations of Poisons is. that they destroy the parts to which they are immediately applied, & thereby destroy the ability in the system of discharging its various functions # They produce this effect in the same manner that a string tied round a bell, or a piece of wax placed around the string of a violin, prevents the emission of sound from either of them. ※ Poisons act specifically. 1st On the Mind. × 2° On the brain. 3° on the Nerves. 4th On the Muscular System 5th On the Lymphatics 6th On the Sanguiferous System, as the viper 7th On the skin 8th On the ~~bowels & skin~~ Stomach & bowels. 9th On the Lungs, as Acid gas 10th Poisons act generally on the System as Opium. & the Contagion of the Plague

Chemistry affords us examples in support of our doc=

* Their stimulus excites a Hectic or Chronic fever

+ If we admit the vitality of the blood, we explain at once the effect of poison, a single drop in = sinuated into the vessels destroy the animal

tine of poisons. Mercury put upon Gold destroys all its properties of ductility, malleability &c. Zinc & Copper are both within themselves inonorous; but upon mixture form a fine, brittle, sonorous, & elastic compound. Many other examples of like nature might be adduced from chemistry. May not therefore poisons act upon the blood by mixing with it & destroying its vitality. Formerly we looked up for power to Monarchs & Princes, but of late we have looked downwards, & found it to reside in the people. Since that time we have become more wise & happy. But not so in medicine. We have all been looking inwards for some invisible principle of life; but the Theory I have offered directs us to seek for it from some external quarter; since this theory has been advanced, the phenomena of animal life seem all more plain & simple. We must now look outwards for the support of life, & like the Indians with their Gods, think we see them in the clouds & winds

There are some poisons which do not destroy life immediately, (These are generally from the vegetable kingdom) but, by a long & lingering illness, exhausting the patient, throw him insensibly as it were out of the world. This is the way I explain the action the action of those poisons used in the Southern States by the slaves to extinguish the flame of life in their Masters or mistresses. The Miasmata which produce Ague & Fever some-

*

* They are often found in the Fœtus I have produced from the liquor in wt it floats – Some say they are spontaneously formed – but it is false – the very idea is absurd. Spontaneous creation cannot be admitted without dethroning the Governor of the Universe

times kills instantly, but it nevertheless may & often does bring on a chronic disease. There are frequent instances of persons who have been poisoned, arriving again to perfect health. Even arsenic itself sometimes yields to the efforts of the system to recover itself. — —

Of Foreign Matters introduced into the system as productive of disease. —

Worms, from their universal appearance in all animals, I am led to believe serve some purpose in the human body, & that when disease is produced by them, it is either by their being in too large a quantity, or by their getting into some improper place. They are found in almost every part of the human body, in the Liver, Bladder & Throat, frontal & maxillary sinuses, nose, brain & but most frequently Alimentary Canal. The different kinds of worms are the Lumbrici or round worm, The Tenia or Tape worm, Ascarides & the Round worm. They are red. These may be taken into the system ~~either~~ by the fingers, mouth, nose, or aliment, ~~or are generated in it~~.* I am induced to believe that only the lumbrici serve a good purpose in the system, & this ~~may be~~ is by consuming the superfluity of aliment. The other kinds are intruders. The effects of worms are seen more in fall than in any other season. Children are more subject to them than Adults. Some nations are more subject to them than others. The French, Italians & Germans, more so than any other nation.

Worms produce disease only by their quantity, or by their being

* & I am disposed to think that children sometimes get sick from want of a sufficient quantity of worms —

× Worms wh. lie dormant during the winter & spring are frequently roused into action in the fall by an inflammatory fever — the additional heat of the body distent them & render them restless — so that instead of the worms causing the fever we may say, the fever generates as it were the worms

misplaced.* They have no effect upon the bloodvessels, hence then you see I deny the existence of worm fever.× From what I have said Gent: you may think I believe there are few diseases resulting from worms. I would by no means inculcate such an Idea. I believe there are few diseases of children but what are more or less owing to, or accompanied with worms. I seldom therefore advise medicines in chronic cases of young persons, without at the same time having an eye to worms. —

Of Anomalous or extraneous bodies introduced into the Stomach, lungs, nose skin &c as productive of disease. —

I have known death to be induced by swallowing a cherry stone Coppers taken into the Stomach produces distress Nausea &c. I knew a Lady who swallowed a Watermellon seed, which went the wrong way, a violent cough ensued, but ceased as soon as the seed was discharged which was much enlarged. —

Children frequently push grains of Coffee &c up their nose, the consequences of which are often very bad since they often tend to bring on Polypus &c.

Pins often produce disease by being introduced into a part & not immediately extracted. I attended in consultation a son of Mr R Morris, with a sore in the groin, which was not benefitted by any application until a pin was drawn from it by a Mr Burke who was a member of Congress. &

then it quickly healed. A Lady in this City had great pain in her Vagina for some time; however after a while she discharged a pen from that part & was soon brought to her usual state of Health. Wounds from Nails especially in tendinous parts often induce Tetanus. –

Shot bullets & Powder frequently produce disease after having remained in the system a long time. I knew a young man who was affected with delirium every 2 or 3 years until a few shot were discharged which had been lodged in the bottom of his feet when young. –

Splinters are frequently the cause of disease. I attended an Officer about the time of the American Revolution, who had a pain in one of his legs, in consultation with another Physician. We both agreed that he had the Gout & treated it as such. Some days after this there came from the place of pain a splinter of about 1/8 of an inch in length which had been thrust into his feet some years before. –

Paints. Powder & Pomatum are frequently productive of disease such as head ache &c

Retained excretions are productive of many diseases. –

Foces when retained for any length of time are very injurious. Their effect however are different upon different persons. Many people go a long time without suffering any in-

× The

× The following are some of the causes wh- produce an obstruction of the perspiration 1st Unusual exercise of the mind 2 fatigue of body 3° Improper Clothing 4th Damp air - 5 Night air

* The Hepatic bile is a secretion & the Cystic an excretion & we here remark

1st Of the Cystic bile - that this commonly induces Costiveness & produces the Black Jaundice

2° Of the Hepatic Bile, while this produces the Yellow Jaundice, either from the absorption or regurgitation of bile, & emaciation of the whole system, Dropsy, Nausea, Schirrus imperfect blood, White Serum ...

convenience from the retention of their Foces, particularly sailors. I knew a Sailor that went from Philadelphia to Lisbon & back, without having a single passage in the whole time. Dr. Haller believes the great longevity of Birds to depend upon the readiness with which they discharge their Foces. There are many instances of persons going a week, month, & even more without a Focal discharge, but in general it disposes to many diseases. 1st Dyspepsia & diseases of the Stomach. 2d The Piles in consequence of the Foces hardening in the intestines 3d Colic. 4th Inflammation of the Intestines by their irritation. 5th Ruptures; as Inguinal, Scrotal & Umbilical. 6th Diseases of the Brain. The most healthy time for an evacuation of the Foces is generally once in 24 hours: but this period may be exceeded for a short time &c no disease produced.–

Perspiration when retained produces dryness & eruptions of the skin, sneezing Colic diarrhoa &c — ×

Urine long retained will produce gravel, tenesmus &c

Bile when absorbed produces costiveness, jaundice, inactivity; diseased or false vision, making every object to appear yellow obstruction or schirrus of the Liver &c. The causes of this obstruction are brought on in 3 ways. 1st Spasm 2d Calculus or Gall-stone 3d Acridity as in the Yellow Fever. – ✱

Semen when retained; how does it produce disease? I am=

* 1 Too much Motion occasions debility from activity
Violent exercise distends the Spleen —
Hence in Rome the women were Taylors

Fatality
* Dyspepsia Hysteria Fluor albus Dropsy & Death

× The follow^g circumstances respecting Sleep ought be attended to

1st Posture in bed, head too little or too much elevated predisposes to diseases of the brain. —

2 Sleeping always on the Back or on one side, to Palsy &c

3^d Damp Sheets frequently generate Consumption

4th Too small or large a quantity of bed Clothes

5th Sleeping with our day clothes on

6th In a bed with Curtains

7 With the head covered

8 With unhealthy bed fellows — Consumptive persons &c very injurious to Children

9 Sleeping with Old people

sure it does not unless accompanied with a preternaturally strong venereal appetite then it may produce Plethora, distention, & thereby Hysteria Melancholy Madness & Death, accompanied with Priapism.—

Menses when retained produce a Majority of the Female diseases whether of the chronic or of the acute kind. The suppression of the Menses, produces diseases of an highly inflammatory kind, which stand in need of the Lancet, (& not of the Pennyroyal tea or other stimulating medicines termed Emmenagogues)

Rest & Motion as productive of disease. Rest by suppressing perspiration is unfavourable to health. Hence the necessity of imposing on man, labour after his Apostacy, to earn his bread by the sweat of his brow. This was a blessing in disguise. *

Women suffer less than Men from a sedentary life. — ‡

Sleep & Watchfulness. Too much sleep produces debility from Abstraction & disposes to Sottness, ~~indigestion, fatuity~~ &c. 6 hours in the 24 are sufficient. Wesley who lived to 80 seldom slept more than 4 in the 24. — ×

Wakefulness is a relative term & depends upon stimuli — both as to its quantity & quality. The Stimuli of the Passions will often prevent sleep without giving any injury. I knew a card player who would sit up two or three days & nights, without having any desire to sleep. Boerhaave once went 6 weeks without sleep. Haller tells us of a woman who passed 45 days without

It is sometimes removed by Stimulants sometimes by depleting remedies

* It affects the Stomach & Bowels produces obstruction of the Spleen & liver, weakens the brain & disposes to Mania - weakens the powers of the Senses - produces a falling off of the hair from the body &c

Inactivity of the mind produces disease - the mind is weakened by Idleness - But there is something produced by inactivity of the mind similar to Dr. Hunters Stimulus of Vacuity When the understanding is torpid, impressions are violent The Imagination when unduly exercised weakens the other faculties of the mind - hence follows the Madness of Poets Memory is weakened by inactivity - The Moral faculties are diseased by vice. The Sense of Deity is destroyed in Atheists Conscience becomes torpid by repeated acts of vice - thus it has been said to be seared with a red hot iron The Believing Faculty is destroyed by long Interest Hatred &

sleep. The want of sleep is owing sometimes to the debilitating passions of Grief fear &c. They act by reducing the system below the sleeping point. But above all Wakefulness is kept up or produced by fever. This state of wakefulness is exemplified in the Anecdote of General Washington & the Indian Companeter. — In an answer to the General's reply he has the following words "your words contained in the great paper you sent me were like the Sun in the morning to a fever sick man, which makes him glad but does not cure the pain. —

We come now Gent: to an important part of our Pathology. viz. The diseases arising from the intellectual faculties & the venereal appetite. A gentle exercise of the faculties of the mind is favourable to health; but intense thought brings on debility. 1st When too long continued, or till improper hours. Thus people who sit up late are seldom healthy. The midnight lamp for this reason ought to be avoided.* 2d It produces debility when the subject is disproportioned to the ability of the person. —

#

The Passions are divided into stimulant & sedative. The former as Hope &c act positively; the latter as despair &c act negatively. These passions are divided into chronic & acute, or in other words passions properly so called & emotions. Sometimes the passions are mixed, & then they produce different effects; as ambition with fear. —

* Hope resembles heat, despair resembles cold

× There is a species of joy denominated by the Indians "the joy of fear" – Frequent instances of suicide have occurred from excess of joy. The son of the Duke of Queensborough killed himself immediately after being united to the object of his affections —

O Turgescence of the vessels, increase of Saliva & Bile – Apoplexy & Death

a change in the countenance, thickens the lower lip wrinkles the face &c

Love produces different effects according as the person is successful or not. Those who are disappointed in love, always love stronger after it, if at the time with their being rejected there is not something that will have a tendency to affront. For this reason Gregory in a legacy to his daughters, told them that when they were addressed by a man, whom they intended to reject, to give a refusal in positive language, that he may have no possible hopes of future success. Unsuccessful love produces Dyspepsia. Hypochondriasis. Hysteria, Melancholy &c

Joy is a powerful Stimulant & will sometimes produce Syncope & even death. The door keeper to Congress in time of the Revolution ~~was struck~~ died suddenly thro joy, when he heard of the capture of Cornwallis, he was a genuine old whig. When joy does not produce death a great depression of spirits often follow & even suicide. Joy is greater when the excitability has been accumulated by previous fear. —

Anger is a powerful stimulant, produces a ~~flow of blood~~ with many other uncommon emotions of the system & will even produce death. A shoemaker in this City died thro' excess of anger because he could not avenge himself of the injury a parcel of boys had done him, by blowing tobacco smoke into his room thro' the hole of his door; also a miser whilst he was complaining to his tax gatherer fell dead. —

Grief acts like a slow poison upon the system. It is one of the worst of sedatives. It produces the dyspepsia loss of appetite &c Grief when excessive will prevent a flow of tears. There is a point of grief which may be called the weeping point; above or-

× when grief attacks persons subject to Hysteria it produces Hypochondriacs

& thus the Chinese to avoid the Tartars threw themselves into a river & were drowned —

× Terror may be defined to be fear embodied — ‡ accord^g as it is near to, or far f^m the party it acts upon

below which tears will not flow. Tears flow when excessive grief comes down to the weeping point; hence hypochondriac patients are so much better after the flow of tears, in consequence of this it appears to approach the Hysteria & Persons under deep grief sleep more soundly than at any other time.

Fear when excessive produces palenes thirst tremors a quick pulse, dryness debility aphonia, asphyxia, mania, suspension of labour pains & death. Fear causes the hair to rise upon the head; to become grey sometimes in one night; A mans head became grey in one night in consequence of the excessive fear produced by an earthquake which destroyed Lisbon in 1755. It ~~acts on the mind~~ destroys all the other passions & sometimes annihilates the desire of life. Speech gives energy in time of fear, hence boys when under fear, banish it by talking of any other thing besides the subject around them. It produces debility, & accumulates excitability, hence the reason why cowards perform great exploits. —

Terror is fear in a compound form when combined with anger. —

Envy acts like a perpetual blister or issue. — #

Ambition is an inflammatory fever of the mind & has great effects upon it. A Minister of State in Sweden died of a cholic in consequence of his being taken from his place. —

Avarice. Many have died (to use the common expression) in debt to their backs & bellies. It abstracts from the love of ones country

* Debauched conversations only take place among men in the decline of life; this appears to be owing to a translation of excitement from the body to the mind — The excitability at this period of life is accumulated & the excitement diminished — hence they require novelty to produce the effect w^h their bodies are unable to do — And we more frequently find married men prove unfaithful to the marriage bed after 50 than at any other time of life —

try, neighbours friends, relations, servants, wife, children, & lastly ones self. The following epitaph was written on the tomb stone of the avaricious Arch-bishop of Canterbury. —

Here lies his Grace in cold clay Clad
Who died for want of what he had. —

It is only by a knowledge of the actions of the passions in a simple & compound state, that a man can have any influence over the minds of others.

The Venereal Appetite, when indulged legally & religiously seldom injures. It injures when indulged by persons too young or too old. The old are not affected unless they have young wives or husbands. When an old man marries a young girl, he expiates his folly by his death. —

It injures when accompanied by obscene books, prints &c. By medicines operating on the organs of Generation as Cantharides — when gratified by onanism. By excess in married men, which is relieved by Sac. Sat. or salivation & low diet. By seminal pollutions. In women this produces Furor Uterinus. The diseases are Dyspepsia gonorrhoea Consumption &c.

Different ~~Situations~~ States of Society as they influence health. I formerly mentioned the diseases of society which are divided into the Savage. Barbarious & Civilized, all of which have their different diseases: As men advance in civilization, fevers diminish & nervous diseases take their place. ——

* The Republican Govern^t has a gentle influence in acting as a Stimulus, & the frequency of Elections like Chimneys convey off the overflowing passions like the foul air, smoke — The late Lord Chatham fainted after a Speech delivered by himself relative to the acknowledgm^t of the American Independence. — A Good Physician must be a republican

* Christianity is truly Salutary, & the Physician who rejects it, th^d also reject the principles of his profession. —— Any doctrine of Christianity unfriendly to health th^d be abolished

Different Governments. In Monarchial governments there is less sensibility than irritability; but in Republican the reverse.* Different Religions. The doctrines of the Christian religion, are more friendly to health than those of any other.*

a religion of some kind is as necessary to man as respiration

Different Employments. Farmers are generally healthy Carpenters are very long lived, because they labour in the open air. Fevers are more common to these two, & the scurvy to sailors. Rheumatism is common to Soldiers as well as to sailors. Coachmen are subject to disease, in consequence of waiting out in the cold for their masters. Weavers are particularly subject to disease as dyspepsia, hypochondriasis hysteria, costiveness &c. The posture of Shoemakers & Taylors invites to disease. Bakers from their living in damp cellars & from their being exposed to the dust of flour are subject to pulmonary diseases. From accurate observation made in the City of London the average life of a baker was found to be 3 years. Smiths of every kind from their exposure to heat & cold are subject to inflammatory diseases &c. Studious men are subject to head ache, dyspepsia &c. Hence this last has been called Morbus Studiorum. Judges are subject to calculus from the long retention of their urine. Clergymen to Dyspepsia, Gravel & Consumption. Lawyers & Physicians are less subject to the diseases peculiar to the other classes of men, in consequence of their blending the exercises of the body & mind. Country Physi-

* Hunting is often a dangerous amusement exposing to wet - hunger alternate cold & heat & it brings on many diseases - Whenever the Y. Fever has prevailed here ~~a~~ persons imprudent enough to go a hunting never escaped it

× Theatrical Amusements frequently generate nervous diseases, as well fm the great change in the Atmosphere of public places, as fm the Passions of the mind being roused by Tragedies - There is impression without motion, there is no vent for the feelings - they regurgitate on us - fashion prevents our yielding to their impulse. It is said they excite Charity & Sympathy - on the Contrary it makes us indifferent to the common distresses of Mankind - & your fine Ladies who wd weep at the Sorrows of a Jane Shore wd turn fm her door with haughty disgust a ragged wretch who shd supplicate her charity

cians from their excessive riding are subject to Costiveness, piles fistula in ano, Rheumatism, gravel &c. I refer you to Rama. Zani on diseases of different kinds of tradesmen.

Different Amusements are hurtful to the System, especially to women from their standing before a glass, or under the hands of a barber in a cold room previous to their going out on a visit. Improper change of dress. The air of crowded assemblies; dancing, I knew a person who died of a fit of Apoplexy when leading down in a country dance. Theatre produces numerous diseases.

Peculiar Customs as productive of disease. There are a great number of diseases to which particular fashions & habits of men have given rise. The first of these sources is dramdrinking in the morning to act as an Antifogmatic. This practice arose from the use of Spirits in the morning for the cure of intermittents in low & marshy places. It creates a fondness for spirits throughout the whole day, & lays the foundation for drunkenness. 2d The practice of drinking wine bitters before dinner. This is a dangerous practice. If the appetite be good it needs not an additional stimulus, & if otherwise the bitters creating one beyond the powers of digestion, will do harm by bringing on indirect debility.

3d The custom of women receiving lying in visits. The female system is then in a very excitable state & by no means able to bear the stimuli of conversation. 4th The tolling of bells for

* Sore eyes, Cancer Gout &c – A Child very much like his parents in the eyes & Forehead, will very probably inherit the Parents disease –
* generally in the decline of life, between 60 & 70

the dead. This has a very bad tendency upon a sick person. 5th Chewing Tobacco; See my Essays

Diseases arising from unhealthy Ancestors. These are Congenial & hereditary. Of the first are many diseases as Measles, small Pox, Jaundice, Lues Venerea, Plague, Yellow Fever &c. Dr Rupell says that in time of the plague at Aleppo many children were borne off with the plague which their parents had. —

2d Hereditary diseases depend upon temperament & shape of ancestors. Consumption is more frequently derived from the father & Mania from the mother. It is remarkable that the consumption seldom appears before 20 or 21 & madness not before the age at which it attacked the mother.# When the Parents have been afflicted with Gout half the intemperance will bring it on in the Children. Gout Hysteria, Hypochondriasis & Leprosy are all Hereditary diseases. Besides congenial & Hereditary diseases there are family diseases as Epilepsy Palsy &c. There are many instances of diseases skipping one or two generations & then shewing itself. You must not then confine yourself to the parents in searching for the source of diseases; but you will often have to go back several generations. A regard to the operations of medicines in Hereditary complaints is necessary. What was good in the same case in the ancestors; for there are family medicines as well as family diseases. This is of such consequence, that I wish

※ Except where a Physician of Judgmt. corrected in his practice their erroneous principles

× Note Opium in large doses produces all the symptoms of Maligt fever

× while equally as many have died by taking opium accordg to Brown who says that al= most all diseases are of the Asthenic kind There is such a thing as death in Med –

all those who have diseases communicable to children would likewise leave with them the remedies they had found useful.

Diseases arising from the improper use of Medicine. These have arisen chiefly from the injudicious confidence in false systems of medicines & wrong ideas in the operation of medicines. The false systems of Medicine from Hippocrates to Brown have slain their thousands* in the hands of weak Physicians. That Physician perhaps will have the most success in his practice who borrows a little from all the systems. Many hundreds have died in consequence of the publication of Dr. Chain on regimen, by living on diet so low as not to be sufficient to support life; from taking opium upon a supposition that it is a sedative according to Dr. Cullen*. From ~~a confidence in the Asthenic diseases of Brown. But think not Gentlemen that I do not hold out for a theory in medicine~~. There have been & are yet many false theories in medicine which have done much harm. But we ought no more to reject entirely the truth of theory in medicine because of the different spurious ones; than we ought the true religion, because there are many false & injurious ones in the world. —

The injudicious confidence of the operations of nature is also a cause of many deaths. This injudicious confidence is just as absurd as to believe in Witchcraft or Animal Electricity. —

One grand argument in favour of the operations of Nature is that she is the only Physician of the brute creation; but this proves too much. Brutes seldom recover from a slight disease, such as we could cure in many by the application of a few simple remedies. But in this enlightened age, Nature seems to be the Pagoda of many Physicians. If the regular bred Physicians have done harm by the means just mentioned how much more must have been done by the

Quacks & Mountebanks. I once saw a dialogue between a Sword & Rum Hopshead disputing which had done the most in destroying man. Had a representative from the quacks stept forwards he would have gained the palm with ease.

Diseases arising from the imprudent or habitual use of medicines with or without the advice of a Physician.—

1st Purges These when given too often dispose to costiveness & thereby call oftener for their exhibition. Different kinds of purges do injury to different parts of the system. Aloes dispose to Piles, butternut pills dispose to Vertigo Palsy &c. Glaubers Salts to a debility of the intestines. Purges are often given to prevent eruptions &c; but abstinence from animal food would be much the best.—

2d Emetics. The habitual use of these produces dyspepsia — also other complaints of the Stomach, & by that means affects the general system; they produce ruptures of all kinds.—

x James: Powder poaked & purged to death Goldsmith
& Howard

3d Bitters induce indirect debility, dyspepsia Palsy &c & dispose to dramdrinking &c. Exercise is the best of all tonics with a wele regulated diet. —

4th Nitre has produced Dyspepsia, a disposition to Colic &c —

5th T. & J. used in the Spring without disease induces plethora Apoplexy &c Abstinence in the Spring is much to be preferred. —

6th Sudorifics habitually used injure the System. —

7th The imprudent use of the warm or Cold Bath disposes to many diseases, but when the warm bath is used in the predisposing or forming state of Fevers, it is an excellent & valuable remedy. —

8th Pediluvium when indiscriminately used so often does harm as good; in predisposition to disease it has been of immense service; but when morbid excitement prevails, it wile produces delirium & increases every symptom of the disease. A Pint of wine will do as little harm when the disease is formed as Pediluvium. —

9th Diets & Drinks suggested only by false theories of medicine produce many diseases. —

10th Exercise in excess is hurtful especially in fevers. —

11th Quack medicines of all kinds have swelled the Bills of mortality. Thus Godfrey's Cordial has destroyed many children. I have seen it once destroy a child in this City Turlington's balsam has produced inflammation in the bowels & even death. Even the so much famed Portland Powder has done considerable mischief. — X

* The Camp meeting convulsions seem to be propagated throughout the Camp by sympathy & the imitative principle. —

× I have seen 3 drops of Laud produce Colic & strangury - this is the case with many men in particular persons

But sometimes medicines produce mischief in the end when they appear to do neither harm or good in the beginning; & that too in the hands of Judicious Physicians.* This arises from a peculiar Idiosyncrasy in certain constitutions; hence gentlemen you may see the impropriety of blaming your brethren in medicine too suddenly.—

Sympathy & Antipathy as inducing disease.— This Genl. is a difficult subject. That sympathy should exist in minds is easily imagined; but that it should exist between bodies is not easily imagined. The diseases of Sympathy in bodies seem accountable for upon the consideration that man is an imitative animal. This principle of imitation, is a deep seated principle in the minds of most of the human race. It is to this that I refer yawning & gaping wh are so infectious in large assemblies. To this likewise I refer the sore eyes which sometimes arise from viewing those that are sore. Even convulsions have been communicated by sympathy, also stuttering, the Jerks as they are called &c.*

But how shall we account for that intuitive evidence wh some people discover in finding out events to which they are entire strangers as to any external cause. Dr Johnson says that Lord Roscommon when a boy at school in France was suddenly when at play impressed with the idea that his father was dead who was then at the distance of more than 300 miles from him. True it was his

*. All these people are rendered liable to disease from their Antipathy which other people are exempted from. For instance a person having an Antipathy to a cat will be exceeding agitated & perhaps made sick by being confined in the same place with one, but this would have no effect on an ordinary person — I knew an instance of this same kind of Antipathy in one of the bravest men in the American Army, yet the sight of a Cat wd drive him from the head of the regiment — he died with this Katapholia

Note All associations are the effect of visible or invisible motions

The associations of motions exist in the body 1st By Association of Ideas — 2d Without this aid

father died at the time in which the idea struck him. —

Antipathy, is often congenial & acquired. Some men are born with an Antipathy to water; as Peter the Great: while King James 6th was born with with an antipathy to a sword. Others to Cats, Dogs, rats &c. I once heard of a man who could even tell when there was a cat in the room, without seeing or hearing it. — This must be owing to certain effluvia of the animal he hates. — 2d for Association. —

Diseases arising from the Association of Ideas & Motion.

Of the former it is well worth attending to. There is scarcely a disease in which this association is not present. Of the latter they are numerous. 1st If a man accustom himself to make water just before going to bed, he will be sensibly affected by omitting it once. 2d A Lady who took snuff profusely, was at last taken with the Palsy & became incapable of raising her hand to her face, which she could very easily do when Sal Comm Cerui was applied to her nose. These 2 facts are sufficient to prove the power of the association of Motion. It is by this association of motion I account for the periodical returns of paroxysms in intermittents &c That it is so, is proved by these paroxysms being prevented by exciting a new action or mode of association in the System. Thus riding on horseback, cures intermittents by breaking the chain of association; Salivation & travelling has had the same effects in Epilepsy

* I never knew a Man live to be old who was subject to Stomach Complaints, We should never eat what disagrees with our Stomach — It is the conscience of the body

Europeans by coming here after they are 40 generally add several years to their lives

o It is computed that 78 out of 1000 die of old age

Diseases from Accidents. I once saw a case of Hydrocephalus Internus brought on by a stroke of a hammer on the head. 18 months previous to it. And another of a pain over the eye in a man who had been frequently raised by the head when a child. A. Mr Campbell was taken Maniacal at 23 from the kick of a horse which he recd at 15. You see here that we have to go back, days, months, & even years for the remote causes of disease. See Bell's Surgery for diseases of this kind. —

Diseases of Time or Old age. See my Enquiries. I shall however mention such facts as have occurred to me since their publication. 1st The State of the Stomach greatly influences Longevity. The signs of a healthy stomach are 1st an appetite & an ignorance that we have one. 2d That we hear no more of the food after we swallow it. i.e. no signs of flatulency heart burn &c. —

2d Migration influences the approach of death. Old persons frequently prolong their lives by migrating from one country to another situated in a more southern latitude. — #

3d However long some people live few of them die of old age. ©

4th It is computed that only 6 out of 100 reach 60 years. —

5th More women live to be old than men but more men to be very old than women

Predisposing Causes of Disease. These are either natural or artificial. The natural occur in different ages & conditions

* One half of the Children born die before the age of Puberty, more die in warm, than in Cold countries; more among the poor than among people in easy circumstances. More boys die than Girls —

Hemorhages & most of these diseases may be prevented by V.S. Purging & low diet —

of the system; as

1st Infancy. These arise from the disproportion of the head & consequently the greater determination of blood to that part. Hence eruptions behind the ears, tinea capitis, apoplexy, hydrocephalus &c. Infants have also less sensibility but more irritability than adults; hence they are more disposed to convulsive diseases of the bowels, stomach &c. Dentition not only produces painful & swelled gums, convulsions, fretfulness &c but I have seen it produce swellings of the inguinal glands & gonorrhoea. Worms, tenderness of the skin papious &c all become the source of disease in infants. It is computed that half the infants die under 7 but more certainly 10.

2° Childhood & Puerility — The diseases of infancy are nearly applicable here, irritability still predominates over sensibility.

3° Puberty. In this sensibility begin begins to get the upper hand of irritability. Here febrile diseases of an inflammatory nature begin to take place; as Ptheris Catarrh, dyspepsia, hypochondriasis &c

4th Adolescency or Manhood takes place at 18 & continues till 36. The diseases of this age arise from a determination of blood to the organs of generation. They are diseases of the stomach, dyspepsia, hysteria hypochondriasis pain in the limbs & joints, swelling in the neck & groin, giddiness in the head; and those which arise from the exercise of the venereal appetite. From the 36th to the

* This disposes to many diseases
† The excitability of the whole body seems absorbed by the arteries. —

to the 46th year of our life the venous plethora prevails over the arterial. From 40 to 57 there is better health more happiness & fewer deaths than at any other period. The excitability & excitement being equally proportioned to each other. But old age soon comes on. The menses in women now cease.* As soon as man begins to use spectacles, he may be said to have put on a part of his shroud, & when he rises in the night to discharge his urine, he may then be said to have advanced the first step to his grave. From 57 to 63 the system is predisposed to Colic vertigo & apoplexy. From 63 the system gradually decays. It is then that a second childhood is produced, & here again excitability predominates, thus a man who at 40 would drink his bottle of Madeira, would when at 60 or 70 be intoxicated with 3 or 4 glasses. It is at this period that the grasshopper becomes a burden. They are more disturbed at trivial incidents, & are more sensible of the changes of heat & cold. After this as the body advances to 80 or 90 the sensibility of the nervous system decreases & the excitability of the arterial system increases, & the body is very liable to inflammatory complaints. + Dr Chovet & Franklin died of an acute inflammatory disease between 80 & 90. The fluids of old people become acrid by age; as the tears, urine, gastric juice, mucus of the nose &c Hence trifling sores often terminate in cancers at this time of life & bruises end in Mortification. Here muscular weak-

*Ceteris Paribus — a greater proportion of single men & women die in a given time than married

+ Celibacy is more injurious to health than married life

ness also attends. Hence the shaking of the knees, head & hands.

The diseases of Old People are chronic & acute. The former attacks 1st The bloodvessels 2d Nervous. 3d the muscular system. 4th The Brain 5th The Alimentary Canal. Some old people take a pride in shewing their strength by standing & exposing themselves to cold: by this they not only often suffer sickness but even death. Few people die of old age, they are frequently said to die of old age but when this is the case they leave the world without pain, & death is nothing more than sound sleep. Dr Priestly told me that his father died of extreme old age alone. He was sitting in his arm chair surrounded by his family & the last words he uttered were "that he feel no pain whatever, & with these words breathed his last. —

Conditions of the system in single & married life as predisposing to disease. —

Married people are generally of longer life than single. Single people are more subject to hysteria &c. Women are disposed to disease from disappointments in love. Men are often diseased after marrying but this is not the case with women. —

Barenness is often a source of disease. I once knew a barren lady who upon seeing a pregnant beggar said "I would be that woman with all her rags if at the same time I could be with child". Batchelors live a hypochondriac life. It has been said that a batchelor's life is a good breakfast, tolerable

dinner but a very bad supper. Pregnant women are subject to acute diseases. The Consumption is suspended during pregnancy; because the inflammation of the Uterus is so great as to take the determination from the Lungs; but when the uterus is relieved of its distention, many other diseases may arise from the abstraction of its former stimuli. Pregnancy predisposes to costiveness, vertigo Mania &c. Suckling children to consumption & a suppression of Milk to Cancers, tumors &c. There would be few cancerous uteri if V.S. were more used about this time of life. Some diseases are apt to produce abortion, as influenza even when moderate: while the small pox & others of a more powerful nature do not. The menses cease to flow between 45 & 50 then the system becomes plethoric & disease may be prevented by occasional V.S. purging low diet & exercise. –

Deformity in size, or the configuration of the whole or any particular part of the body predispose to disease. People uncommonly large or small are apt to be short lived. Very tall men according to Dr Darwin seldom live over 25 or 27 years. Dwarfs are generally short lived. The following is an exception to this. The dwarf that was brought from Germany in the time of George 1st lived 80 years. Those who grow very fat before 40 are generally short lived. Large heads & short necks dispose to apoplexy. Narrow chests to diseases of the Lungs. Montaigne says that deformity of particular parts dispose

*. One disease badly cured disposes to another thus Pneumonia badly cured disposes to Consumptn. Intermittents to Jaundice Dropsy &c &c

I must not conclude this subject without taking some notice of the causes & Phenomena of Death —

Death follows the absence of Stimuli not support life — these stimuli losing their effect by repetition, the excitement being smothered as it were by the excessive force of impressions &c. Morbid excitn. just before death fixes in succession on different parts of the Body — Falling upon the brain it elevates the Genius above its ordinary exercises gives occasionally more talents, as a talent for Poetry Music &c. reexcitates dormant impressions so that a language long since forgotten is spoken again. — Transferred to the Trachea & Glottis Morbid excitement just before death produces a very strong voice, the rattles &c. Transferred to the Stomach, a wonderful appetite is excited just at the approach of Death. To the Muscles it produces rigidity in them & convulsions. To the Penis producing Priapism — To the arteries producing activity of the Pulse to the wrist. — Morb: Ex: just before Death whether fixed, diffused, or flying is frequently attended with great pain, which pain is constant or attended with intermissions. Death from old age is never painful. Sometimes at death Morbid excite: becomes stationary, at the point of pleasure & the person feels pleasure while dying. Death is often attended with great fears of futurity, but sometimes even

Delirium, & a perversion of the Moral faculty even in pious persons

to an increase of the Venereal Appetite. Women suffer less from deformity than men. Congenial weakness of a part or of all the body dispose to disease. The present King of England is only 7 Months child; but in consequence of his temperance has reigned many years. Of all the Parts of the Body the Stomach liver & Spleen are the most susceptible of disease. #

~~This Gentleman finishes~~ our Pathology; & I again repeat that there is but one disease, morbid excitement; but one Predisposing cause — debility; and but one exciting cause — an irritant. — #

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even the most wicked are unconcerned about futurity The coldness attending death generally begins in the toes & fingers but sometimes in the wrists. There have been many disputes about the ultimum moriens I am of opinion that this depends very much on the nature of the disease the persons die of. The stomach & Bowels generally retain their irritability for some time after death — tho I am disposed to believe it continues for some time after the action of the Heart & respiration have ceased. Heat & Colour often fluctuates in the body for 2 or 3 days after death — A yellowness of the skin often takes place at the moment of death The pupils of the eyes become lax. × The Muscles generally speaking are the Ultimum Moriens

● On the Senses rendering them more acute — On the Fauces producing thirst — On the bowels producing Diarrhoea — On the Kidneys suppression, or an increase of urine — On the Lymphatics — hence the effusion or absorption of water in Dropsy just before death

* Chemistry Mat: Medica Anatomy Physiology &c are all valuable only because they throw light upon the Practice of Physic & cure of diseases. All these branches are necessary to be understood by a Physician & also Surgery & Midwifery. Therapeutics, or the art of curing diseases, formed upon a Knowledge of their causes have uniformly considered as a Science —

Medicine has improved in proportion as it has become a science, & recieved aid from other auxillary sciences. I shall not give you a particular History of Medicines & their doses, that I leave to Dr Barton - I shall only give you a general acct of the tools or Medicines you are to use & the manner of using them

Therapeutics. —

Gentlemen

After having considered the remote, exciting & predisposing causes of disease, we proceed to Therapeutics, & view the system in a morbid state with the debility predisposing, & following disease. Therap: may be defined, the art of curing diseases founded on a knowledge of their causes

The first article in our Syllabus on Therapeutics is respecting the powers of nature in curing diseases. What is at present called the supposed powers of nature was the Anima Medica of Stahl. The supposed powers of Nature arise entirely from Physical necessity.

1st There are however cases in which nature cures diseases, such as in Fevers causing a dislike for food; in hemorrhages by causing faintness & consequently a collapse of the vessels, & in wounds by supplying new Cover of flesh. —

2d There are cases in which nature is too weak & feeble to do service as in Malignant fevers.

3d In others she is not proportioned to the disease as in Cholera Morbus

4th Entirely idle sometimes, as in Chronic Gout, Epilepsy, Mania Cancer & Syphilis. —

5th Sometimes does mischief as in Dropsy & Consumption. —

6th Sometimes refuses her aid as in Aneurism & Schirrus

7th Sometimes excites less pain than is proportioned to the disease as in Tetanus, & Sometimes more as in Toothache & Whitlow. —

8th Nature is weak in the diseases of domestic animals for in these disease & death are very nearly connected, especially in Epidemics. —

I am not the first who opposed the operations of Nature in curing diseases. Sydenham & Mead were long ago opposed to the operations of nature. The efforts of Nature in the cure of Diarrhœa & Pleurisy, bear no resemblance to the action of Opium & the Lancet, which are our sovereign remedies. Nature in health is like a man in his senses, but in disease like a madman.. She may be compared in disease to a drunken man in a dark room who after finding the door, stumbles against it, breaks it down & ends his existence at the same time. In short when you are called to prescribe in acute diseases you should serve nature as a noisy cat or dog in a sick room, i.e. turn her out of doors. In the cure of diseases, however, the operations of nature may be attended to but not trusted. In Epidemics, if the bowels should be affected & show a tendency to carry of the disease by discharge this operation should be assisted by the operation of purges. If hemorrhagy from the nose attend the disease, blood-letting will be proper. If boils or eruptions on the Skin appear, substitute an artificial disease on the surface. If sweats accompany the disease sudorifics should be administered. Lastly

*. Diarrhoea often shd not be cured

~~* Turn to the next page & see this Mark * & read down to —~~

if sore throat or a disposition to cough attend, mercury should be administered to expel the morbid matter. You see then Gentlemen that Physicians should be the Masters & not the Servants of Nature as Hippocrates said. —

One outlet to a disease should not be solely depended upon altho' it may be sufficient in a few very mild diseases yet every avenue & outlet, thro' which it might possibly escape sh.d be opened X

There are some diseases which should not be cured by out as eruptions on the heads of children. These sh.d not be cured unless some other mode be instituted to carry off the matter. —

The bloody piles in old people should not be cured, unless we substitute some vicarious discharge from the Body. —

Intermittents succeeding Madness or Palsy should not be cured. —

Dr Bond advised his Maniacal Patients to visit a marshy country, & thereby get the intermittent as a palliative of mania but Q.J in this case would have been much better. — *

Gout & Rheumatism succeeding Melancholia & Mania should be cherished. Dr Monro had a daughter that was twice taken with Mania upon the retrocession of a head ache. —

Old tetters or sores should not be cured up because apoplexy or Palsy often succeed a sore thus cured unless some vicarious discharge be substituted. Death has been often brought on by curing sore legs in old people. —

Ascites

* for it is rarely cured by it - I have seen death succeed tapping after a few days - besides the Lymphatics are sometimes roused into action, & cures Gonorrhoea shd not be cured when it has suspended other diseases of more violent action.

Pain becomes sometimes a necessary stimulant for habit - thus the extraction of a decayed & painful tooth has produced a fatal chronic disease

© Remember the Old Vulgar proverb "What's one mans meat is another mans Poison" We frequently lose & acquire new predispositions in the course of our lives. —

Ascites should not be ~~cured~~ relieved by tapping after remaining a long time *
Habitual sweats from the feet should not be stopt.—

There are some cases in which pain should not be relieved — but these are very few. #

* In Epidemics we ought to pay particular attention to the Climate & all local circumstances, to the seasons of the year, heat & cold, dryness, & moisture. There are no succeeding epidemics perfectly alike in different years; consequently the practice should be suited to these different circumstances, & regulated by the National temperaments, habits, dress, customs &c. / attention ought always to be paid to the country from whence the persons came. Intermittents when they attack a native of Ireland frequently require V.S. & seldom yield to the bark after he arrives in America, until the use of the Lancet; while in the natives of the Middle States intermittents generally yield to the Bark alone. / The particular desires & longings of the Patient should also be always attended to. In the time of the American Revolution, the soldiers of Eastern States were affected with Nostalgia while the Virginians longed for salt bread & corn pork. Appetites however singular should not be neglected; nor are the forms of Government or Religion / Individual temperaments & Idiosyncrasy & habitual diseases or habitual remedies are not to be left out of Consideration. — ©

In Chronic & hereditary diseases you should look back as far

x The diseases of Children are more successfully treated by emetics than those of Adults & they will bear larger doses of Calomel under dentition than at any other period of life

* The Habit diet & medicines of our patients shd be enquired into - A diet of vegetables will not answer to recruit a Convalescent "bon vivant" who has been nurtured on Roast beef & plum pudding
• Patients frequently deceive themselves with regard to their temperance - Case of a West Indian who laboured under some obstinate Chronic complaint upon being questioned about his mode of life, observed that he was very temperate I asked him to explain what he meant by temperance - "Why" said he "when I dine at home I never exceed a bottle of wine, & when I dine out, wh is only twice a week, I generally bring away my 3 bottles with me. -

as the 2d & 3d Generation.

Whole families are sometimes carried off by diseases contracted by peculiar habits. Witness Dr Craigs family of Alexandria all whose children have died with Consumption, whilst both his wife & himself remain in good health. *

The age of men, the state of their hemorrhoidal vessels & the Catamenia in women are not to be overlooked, also worms in children should be had in view in our prescriptions. *

There are often recent causes of disease which Physicians should always have in view, as hard drinking, intemperance in eating, guilt, debt, love, envy mortification &c: which should be sought for from their friends, acquaintances or enemies, & not from the patient himself. *

Physicians must frequently look back months & even years for the causes of disease. The removal of the remote cause as Celsus says (for these are his words "sublata causa tollitur effectus) will not cure the disease; for the Hydrocephalus internus of children to wh. worms predispose is not cured by the removal of the worms. In the treatment of diseases, hope as far as consistent with truth and reason should be inspired into our patients; for it is the best vehicle of medicine; & the greatest circumspection is necessary that not even a doubt be expressed; for it defeats the intention of medicine. The principles of faith should also be attended to. Hence quacks so often succeed in the cure of diseases. —

The predisposing cause of all diseases is debility wh. appears to be a mechanical power in Medicine. —

There are perhaps no diseases which do not appear to have alternate exacerbations & remissions, which sometimes require different & even opposite remedies. In the first case sedatives are necessary. In Remissions debility is frequently present & requires the administration of Cordials. In chronic diseases the patient sh. regularly take his medicine. It is frequently of very great importance to advise patients to continue the use of their medicines, even when they feel the least want of them. Debility which is the predisposing cause of disease is not confined to days weeks nor to its forming state, it frequently succeeds disease; in which case the patient should continue the medicine which cured the disease for months & even years. Disease may be compared to a garison the besiegers of which should never be idle, unless there be a certainty of bringing on a capitulation by starving the people contained therein. —

The Choice of Medicines. Formerly they were thought to be valuable in proportion to their prices. I suppose that all diseases may be cured by few medicines; which by being better known will be more certain in their effects. An advantage frequently arises from concealing the names of medicines. —

Respecting the Operations of Medicines two opinions have prevailed. One is that they act more certainly in a simple form

*: It is of consequence to recollect the different effects medicines on Adults & Children for Sacch: Sat: will cure Epilepsy in Children but not in Adults ~~Med require their Coadjutants as well as aliment~~

* It may act in this case in one of these 2 ways 1 By a change of their Natures & the formation of a Tertian Quid or 2 One of the Med: composing the Compound may excite the Stomach to the point, in wh the other can act —

while others contend for the advantages arising from combination. These opinions appear to be reasonable. The Bark Opium &c are generally best when exhibited in a simple state. While sugar enables the Stomach to retain medicines which it would otherwise reject. In this case a weak pleasurable sensation overcomes a powerful disagreeable one. Bark & Valerian combined will cure certain headaches, ~~but~~ wh when seperate wd avail nothing.* Opium & Alkali when combined will cure certain cases of Tetanus yet when seperate avail nought. Dr Fordyce contends for the advantages arising from compound medicines, & says that Alum is a greater astringent when combined with rose water than when alone. Dr Hall also contends for the combinations of medicines, & says that some medicines are strangers & enemies to the system & should not be introduced into it without their guides or spies. Squills & Gum Ammoniac when combined form a better pectoral than either of them seperately.—

Tartarized antimony & Ipecachuana form a better emetic than when seperated. Capsicum & pepper give no heat & pain in the Stomach as they do when seperate. Neatness & cleanliness should be greatly attended to in the preparations of our medicines. Writing the name of the Patient on the paper of medicine should always be done. Med: require their Condiments as well as aliments —*

Drawing the mind from itself, or in other words drawing off

*: It is our duty to attend to all the cases to wh we are called, whether they seem to be desperate or not. In prescribing a doubtful remedy for a desperate disease we sh^d do well to imitate Dr Cullen who once requested a Clergyman to advise V.S. when he was afraid to advise it himself ©

#) The best medicine that can be used is sometimes no medicine at all. If unfortunately the patient is constantly wishing to take medicine feed him up with bread pills or some other convenient articles on wh he sh^d be encouraged to place confidence

© A medicine sh^d never be laid aside until ~~this of course~~ all the different preparat^ns have been tried Opium will frequently lie on the Stomach when Laud will not. —

Med: are frequently rejected from association, hence the necessity of sometimes disguising our medicines, as the preparations of Mercury — # see above

the attention of the patient from his disease is very beneficial. Dr Cadwallader was very successful by this practice. He once by reason of his great humour prevented a man from committing suicide. The tone of conversation should be suited to the state of the mind. Hence smith is sometimes beneficial and sometimes prejudicial. Mentioning high priced medicines to persons who are unable to purchase them should always be avoided*. Physicians should never advise patients to make their wills; for they might as well pass sentance of death upon them; but they should always inform the friends of the patient concerning his danger, that they may be prepared.—

Concerning the operations of Medicines there is more fallacy in the opinions of Physicians than on any other point. Dr Fordyce says that the best effects of Antimony in fevers is to produce a relaxation of the skin; whilst Dr Cullen thinks that Nausea is of the greatest advantage. Since we reject Empyricism, we must always prescribe for the symptoms of disease, & as consultations may be useful in some diseases as compound medicines, they sh. always be resorted to.—

1st As Iron sharpens iron so will the opinion of one Physician a spirit that of a nother.—

2d Novelty of two or more Physicians may inspire hope & even confidence in the Patient.—

3d Responsibility is divided between the consulting Physicians.—

*Remedies for preternatural excitement — gentle Physic & in some instances b. ff Debility when it precedes disease — the remedies rest & gentle stimulants — these sh^d vary accord^g to the seat of it

Debility when it falls upon the Bloodvessels requires different stimulus f^m what it does when it falls upon the Lymphatic system

x Prostration disorder debility. —

Cases in which a Consultation is necessary. 1st In doubtful cases. 2d In dangerous tho' not doubtful. 3d In uncommon cases 4th In desperate cases 5th When new medicines are supposed to be proper. 6th In cases where there will probably be an appeal to justice; for the life of a patient should not depend upon the testimony of any one man; or at least a Physician would not be willing to bear testimony alone, when the life of a human being depended on his Opinion. In Consultations choose Physicians whose principles are similar to your own. Two modes of practice tho' each may do good when seperate, yet when combined always do harm.—

We come now to the application of our Principles.—

1st effect of impressions on healthy excitement is to elevate it up to 100 on our scale, & produce preternatural excit~~ability~~ement. ✝

2d Debility from action is produced by a longer application of impressions. The system is now at 40. If you abstract or add impressions the effect is the same viz debility. — ‡

3d Depression, the system is now at 30, these states of the system are attended with accumulated excitability, if the impressions act suddenly.

4th Disease or morbid excitement is produced by a still longer application of impressions; but if these impressions act gradually both excitement & excitability are worn down & no disease is produced.—

5th Oppression or suffocated excitement. ✝ The system is now at 20.—

x & 3° those wt obviate the Debility succeeding disease are the Class of Tonics.

This ought to have been 201 † 181
or absorbed

6th Prostration. The excitability is now smothered & the system cannot react; new & different stimuli must now be used to rouse the latent excitability, which is enveloped as it were, & will not emit the motions of life.—

7th Disorder.

8th Death.—

When debility is suddenly induced, it is attended with accumulated excitability, & should be treated with low diet, rest & gentle medicine; but when debility is induced gradually we must gently stimulate. Elevation shews itself by alacrity wakefulness & an increase of appetite. Depression is followed by a tendency to disease sometimes, in this case depletion should be used; but when there appears to be no tendency to disease stimulants should be used. We must equalize excitement & divert it from vital parts by depletion or stimulants. & Tonics

Medicines have been divided into Sedatives & Stimulants.— The first class viz. sedatives act by abstracting & reducing morbid excitement. The second class viz. stimulants act by equalizing excitement by creating a new action, by diverting it from parts more essential to life to those which are not so much so by rendering it natural.—& to diffuse it equally. ×

Sedatives are divided into 1st direct & 2d indirect. Those wh act directly by lessening the stimulus & abstracting morbid excitement are

* & skin dry – useful in Muscular diseases
# And thus diminishing all the secretions

× Fear may operate in curing Surgeltus by the abstracting of Mord: ex: from the Diaphragm

2 From Poultry

8 5 From eggs. 6 The less nourishing kinds of fish & the different kinds of shell fish – 7 Vegetables

⊠ 10 Mucilaginous Substances Gum Arab: – 11 Total Abstinence ——

1st Bloodletting

2° Cold applied either by air, water or ice when the system is above 96 ‡

3d Fear. This ~~reduces~~ morbid excite.t by abstracting the stimulus of courage: ×

4th Abstinence. This is of different grades. 1st Refraining from fresh animal food. # 3d From salt meat. This is not so nourishing as fresh meat since so great a quantity of it cannot be eaten. 4° From fish. ⊗ 5° From Milk & saccharine matter. 6th From liquid aliments of all kinds. ⊠ Abstinence acts in 3 ways. 1st By lessening the fullness of the Bloodvessels ## 2° By abstracting the stimulus of food. & 3° By creating when great hunger is induced, a new action & thereby diminishing morbid excitement. The operation of abstinence is too slow in acute & is only to be trusted to in chronic cases; & in those cases of debility, where it increases excitability, & thereby leaves greater room for the action of Tonics. —

The three following facts with respect to abstinence sh.d not be forgotten. 1st The Indians abstain much from food previous to a battle; hence so few of their wounds prove fatal. 2° Animals fasting sometime before their death are after death less predisposed to putrefaction. 3° We always bear fatigue after a vegetable diet, or abstinence, better than when we eat plentifully of Animal food. —

5th Rest abstracts the stimulus of Muscular Motion. —

6th Darkness abstracts the Stimulus of Light. —

7th Silence — the Stimulus of Sound. —

* Bowels mouth or skin
# & are deprived of their vertues in their first passage thro' it

The abstraction of excitement should always be performed in a gradual manner; hence the saying "Natura nihil fit perseltem".
Here we will premise a few Propositions.—

1st I believe there is an action of specific Stimuli.

2° That stimuli act on the whole System, thro' a particular medium. Here the Stomach* is the great medium, thro which medicines act on the whole System. & it possesses the greatest sympathy of any other part of the Body. It may be compared to the regulator of a watch.

3° There are Medicines which act on Sensibility as Camphor mustard &c. Some which act on irritability as digitalis &c & some which act on both, as Opium & Bark.—

4th There are medicines which enter the Blood. #

5th There are some which are deprived of their medicinal qualities by passing thro the body.—

6th That the different parts of the system are capable of receiving more than one stimulus, & even such as are of opposite force at the same time.

II Those Sedatives which act indirectly are such as open the bowels; these I shall divide into three classes, viz. 1st Lenient as crystals of tartar, Natron, clysters, such as act only by their quantity, Castor oil, manna, vitriol with the different Salts &c 2d The Active as Rhubarb, Jalap Calomel &c & 3d Drastic Purges as Gamboge scammony aloes &c— To these divisions fasting may be added.

* attended with great morbid action

They may act by carrying off the redundent Chyle & preventing the formation of blood

⊙ Cathartics are also proper when the Stomach is irritated with bile —

In all febrile diseases when the pulse is above par they are useful the lenient & active are most proper here. —

In Dysentery & Diarrhoea in its recent state — they act in 2 ways — 1st By evacuating the morbid contents of the bowels 2d By creating a new action

Cathartics are indicated –

1st By a distention of the bowels with feces for this N°1 sh.d be used

2d By complaints of the head for this N°1 namely the Cerient

3d In congestion of any of the viscera, for this N°1. –

4th In all cases in which the bowels are unable to perform their functions here N°3 or drastic are necessary. –

5th In all diseases of the Liver Spleen &c ~~contiguous viscera~~, for this N°1 or 2

6th In all diseases of the skin for this N°1 or 2

7th In dryness of the skin from the excitement of the capillary vessels, for this N°1 or 2 – In Y Fever 93 they never failed to produce sweat

8 In Plethora, for this N°2 #

9th In all dropsical effusions* they are proper by lessening the excitement, & producing absorption, for this N°2 or 3 –

10th In obstructions of the Hemorrhoidal vessels; for this N°1

11 In obstinate obstructions of the bowels for this N°1, 2, or 3 ⊙

Here it will be proper to remark that purgatives in a smaller quantity will not operate after a larger quantity has been used, & that a greater quantity should be given to have the same effect, if previously the system has been habituated to the same medicines. As an alterative they should be given in small doses so as to produce an artificial Diarrhoa. When it is necessary to continue purges a great length of time they should be varied. No solid food should be taken during the operation of purges; & they are

* The follow^g Rules sh^d be observed —

1st The Drastic Purges act best by a combination with the Lenient; as Senna with Manna Jalap — Cream Tart —

2d After large doses wh^n have operated powerfully, the intestines are so irritable that small doses will act. —

Clysters are proper 1st in those cases where the stomach rejects Purges — 2d Stagnation of feces in the lower bowels — as in pregnant women fr^m the pressure of the Uterus on the rectum — They have been happily compared by Dr Rush to a short hand brush wh^n removes the soot fr^m the lower part of the Chimney — while Purges like a Chimney-sweep scrape & sweep clean its whole extent —

not so certain in their operation if liquids be copiously given The mild purgatives induce sweat more speedily than the drastic.* Clysters act by their quantity & quality. #

Purgatives are forbidden in the following cases.—

1st In diseases of weak morbid excitement. 2d In the Typhus state of Fevers. 3d In hemorrhagies of the bowels 4th In the first stage of Colica Pictonum.— 5th In diseases of the Lungs

Emetics. These are divided into four classes viz. the prompt, mild, powerful & Nauseating.—

1st Those which act promptly as tickling the throat with a feather, putting the finger down the throat, warm water, white vitriol &c

2d Those which act feebly but certainly as Ipecacu: & Squills

3d Those acting forcibly on the Stomach as Antim Tart: Turbith Mineral &c

4th Those which act by Nauseating the Stomach as digitalis & tobacco which last may excite vomiting by being moistened with Brandy & applied externally.—

Emetics are indicated.

1st In cases of swallowing large doses of opium & arsenic. In these cases the first class should be used. I have prevented death in two instances by these means.—

~~2d In here the 2d class should be used.~~

3d In discharging bile, mucus or indigestible matters from the Stomach. Here the 2d class should be used

4th In a languid state of the Stomach. Here the 2d class sh.d be used

5th In morbid diseases of the head in consequence of its sym-

× They act here by exciting the Absorbents
* Pul: Consump: Cynanche Trachealis —
# by promoting sweats —
⊙ Children require more powerful Emetics than adults as their stomachs are lined with mucus — ¶ They are useful in Diarrhea & some cases of Dysentery

∧ In the commencement of inflammatory fevers in Plethoric habits — always precede Emetics by the Lancet
B No drink whatever sh^d be given until nausea comes on & then never more than a pint or a pint & ½ — the less the quantity taken the more certain & serviceable the Emetic — They sh^d be exhibited often particularly in Malignt ~~fevers~~ Sore throat — to be effectual they sometimes act by inducing a new action —

pathising with the Stomach. Here the 2° or 3° class ~~Th~~ be used

6th In tumors in the remote parts of the body as Buboes &c here the 2° or 3° class ×

7th In dropsical effusions here the 2 or 3 class are proper

8th In an oppression of the Lungs as in Catarrh *&c but when the Lungs are affected with disease, they should not be used. In the first the 2° class is proper.

9th In dryness of the skin here the 2 or 3 class is proper #

10th In the forming state of malignant & contagious fever 2° & 3° class proper here. They act in 2 ways 1st By equalizing excitement & 2° by discharging the seeds of the disease. — Λ

11th They are more powerful & effectual in diseases of children than in adults. — ⊙

In the exhibition of Emetics, you must observe

1st to give them in divided doses, in order that they may not operate too powerfully upon your patients; 2° That as little water be given as possible when we want a prompt effect; 3° That they operate more forcibly & certainly in the morning: The system being at that time predisposed to sickness. 4th Never to suffer them to operate while the Patient is recumbent, because by this means we prevent spasm. 5th That their operation is checked by Laudanum or a spoonful of salt in a pint of water.

* applied to the body by covering the head with a blanket - These May be called External Sweats
** # These I call Stomach Sweats

x 3 In highly inflammatory fevers

⊛ It is necessary to discriminate between the Low & Slow fever. In the former ut is the true Typhus Emetics are very injurious but in the Slow or Typhoid they are beneficial

Emetics are Forbidden

1st In violent inflammations & Congestions of the head and bowels 2d In too feeble action of the system. × 4th In advanced stages of Pregnancy 5th In ruptures of all kinds 6th In low chronic fevers & general debility succeeding acute diseases. — ⊛

Diaphoretics Increase the discharge of the vitiated humours thro' the pores of the skin & act either directly or indirectly 1st Those which act directly on the skin are Pediluvia, Baths of warm water, vapour bath, clay of the heat of the body, & azote. ×

2d Those which act indirectly & produce their effects by increasing the action of the heart & arteries, are exercise to promote sweat, cold water, this acts in a two fold way. 1st By reducing the immediate action of the Capillaries to the sweating point 2d By the reaction of the skin when it is below this point. —

Diaphoretics act on the Capillary vessels indirectly thro' the medium of the stomach. —

1st By nauseating as Antim: Tart &c 2d Without nauseating as nitre, cupotonum, cold water #&c, When the capillary vessels are above the sweating point. These last act on the skin by means of continuous sympathy. — Diaphoretics act 1st When the capillaries are above the sweating point; by diminishing the excitement directly. 2d When they are below it, by increasing it either directly or indirectly. 3d By their action being determined

× 5th Purges frequently prove Diaphoretic by reducing the System to the sweating point. —

* Mosely has advised their use in the Dysentery of Jamaica —

6 In the forming state of some fevers dilutting drinks shd be given to assist their operation & the patient during its Continuence shd be permitted occassionally to eat to support its strength

to the surface of the body, as Dovers powder, vinegar ardent Spirits, eupatorium &c. 4th By the stimulus of distention, produced by warm liquids of every kind. Each of these methods are necessary & are often indicated. —

1st To discharge diseases from the blood. The miasmata exciting fever often attempt to escape thro' the pores of the skin. I have heard of a young man in whom the syphilis went off by the capillaries. The poison of animals also escapes sometimes from the blood thro' the skin, by means of diaphoretics. —

2d They are indicated when the symptoms are so mild as not to require Bloodletting.

3d In Centrifugal diseases, as Rheumatism Gout &c when they affect the limbs. Here I take notice that diseases are called centrifugal when they affect the extremities, & centripetal when they affect the body, as Colic Dysentery &c. —

4th In dropsical swellings when the symptoms are below the sweating point.

5th In fevers in which there is a disposition to sweat; the excessive sweating is sometimes hurtful.

The following Rules sh. be observed in the exhibition of Diaphoretics

1st Perspiration is most easily induced in bed. To excite it flannel should be worn next the skin; more perspiration will be induced in 9 hours in bed than in 15 out of bed. —

× A gentle Moisture on the Skin in Typhus fever or the Nador of the Ancients is favourable, but the Sudor is alarming – Sweats in the Hospital fever are generally fatal. ——

* More successful among Children because obstruction in them is never durable – Plunging a Boys hand in cold water when a sleep will frequently make him wet his bed – During the Y. Fever persons in its forming state were remarked to make an unusual quantity Dr Rush supposes that Ascites & Diabetes arise generally from affections of the Liver Diabetes is nothing but Ascites thrown on the Kidneys ——

2d Subdivided meals because the stomach being alternately full & empty is unfriendly to perspiration.

3d Great attention is to be paid to the heat of the body because sweat cannot be induced with safety when the heat of the body is above 100 of Fahrenheits Thermometer —

4th The temperature of the drinks should be warm when the heat of the system is below, & cold when it is above 100 of Farenheit —

5th Diaphoretics are to be regulated by the stage of the disease

6th They should be suspended occasionally & used moderately lest exhaustion should take place. —

7th Care should be taken to have the linen & bed cloaths of the patient often changed; because sweating is sometimes checked by a stiff shirt. —

8th It is common to give deluding drinks in cases of redundant fluids from redundant excretions, this practice is improper. But in cases of poison this ought to be done

9th Guard against cold & avoid purging & blistering, when you prescribe diaphoretics, unless the urgency of the case require it. —

Diaphoretics are forbidden 1st In highly inflammatory cases. 2d Increases of weak morbid excitement. 3d When they weaken without relieving ×

Diuretics are medicines which increase the urine & are

1st Cold air applied to the body when a little heated; going into a cellar climbing up stairs, hearing a stream of fluid running from a barrel, cold water applied to the body, abstinence, fear, onions applied to the pubes. These I shall call External & Exercise diuretics. *

* They are indicated where the kidnies refuse to perform their office & where they are suffocated with morbid excitement -- In Dropsical swellings where the Morb: action is not very violent Digitalis & Squ are serviceable. -

2d Diluting drinks, such as melon seed tea, white carrot seed tea, parsley tea. Dr Caldwell cured a patient of dropsy with the parsley, w.a after tapping had failed. This class I shall call diluents

3d Those which act on the Kidneys by sympathy with the Stomach, as Salt of Tartar &c — New: Salts Decg: of Alkali &c *

Diuretics are forbidden in all cases where there is an inflammation of the Kidneys. — & in every case in wh you wd not bleed.

Sialagogues are Evacuents & Revulsives. —

Evacuents act first By discharging fluids from parts contiguous to the Salivary Glands; such as tobacco angelica &c

2d By discharging fluids from the whole body in the form of saliva such as Mercury Arsenic Sach: Sat: &c Mercury acts both as an evacuent & revulsive. It is one of the most powerful articles of the M. M. yet its operation is disagreeable & loathsome. It has been said that mercury is not only a loathsome, but also an unnatural remedie. But this is not the case, for mercury is the first remedy of Nature, if we admit that sore mouths & Aphtho are the first diseases of Children. Hence when children sleep much, the gossips say that they are sleeping for a sore mouth, & if examined at this time they will be found to have a fever. —

A determination to the mouth & throat is frequently the disease of Children, or rather the attempt of Nature to cure a disease, as Scarlatina Anginosa Cynanche Trachealis &c —

+ 1670 – 1671

This is of much importance –

In adults spontaneous salivation sometimes accompanies fever & the small pox sometimes, & is generally a symptom of a favourable termination. Death frequently succeeds this useful & salutary remedy, if it be suddenly suppressed. If a cough & salivation attend patients with the Yellow fever they generally recover. Sydenham mentions a Malignant fever in ~~1767 & 1771~~ being cured by a spontaneous salivation. A spontaneous salivation has cured suddenly a dysentery & Gout. A spitting has occurred in Mania & was called by the old writers Sputatoria. It marks the favourable termination of autumnal fevers. It is therefore strange that it has not been used long ago in these cases, & that we do not always excite it when needful, that we so often excite it when not needful, & that we do not destroy life by it as nature does in Apthous, Malignant sore throat &c —

The Auxillaries to excite salivation are 1st Q.S. 2d Low diet 3 Emetics 4th Opium. This assists by inducing costiveness. 5th Cold bath & ice applied to the head. Dr Armstrong of Gr Ships used the cold bath to assist the operation of Mercury. I have used that as well as other cold applications. Dr Bloomfield used the cold shower bath & the partial cold bath as auxillaries to Mercury in producing salivation. Dr Chelsolm tells us that mercury acts soonest in moist weather. 6th Mercury is greatly assisted in producing a salivation when combined with Jallap. —

* In obstructions of the viscera it is often proper not to give Calomel in such doses as to produce salivation directly I have generally first made the mouth sore, thus making it active as an alterative —

× Washing the mouth with Cold water & Diuretics

7th with Antimonial Powders. 8th with Friction of Mercurial ointment. 9th Nitrated or Muriated Mercury to be tried with friction, calomel & corrosive sublimate. When we wish to give mercury secretly, we may put calomel upon bread & butter, & let the patient eat it. It is not necessary in order to produce a remission that a profuse salivation be induced, or even a Ptyalism & in some cases not even a soreness of the gums. —

For restraining a salivation Tr. Op. Opium, Purges, Blisters, oils & Borax held in the mouth. — X

In Philadelphia Mercury salivates 1 out of 4. In the W Indies 11 out of 12 in the Yellow Fever. This must be owing to less morbid action existing in the diseases of the W Indies than in Philadelphia.

A Salivation is indicated 1st In Malignant fevers & such other fevers as are not remedied by other means. 2° In morbid action of the head, lungs, liver, spleen, kidneys, &c 3° In Diarrhoa & Dysentery 4th In Syphilis 5th In visceral obstructions. 6th In old ulcers both external & internal which have resisted the power of other medicines 7th In convulsive diseases as Tetanus &c.

Salivation is forbidden 1st In highly excited states of fever. 2° In low exhausted states of fever. 3d In children under 6 years old 4th In persons above 60. 5th in those having many decayed teeth 6th In diseases tending rapidly to a crisis. Mercury will never produce a gangrene, when the system is sufficiently

They are indicated in tooth ache ear ache &c
They shd not be used when there is a great determination of blood to the head - as their operation will increase it -

* are such med: as increase the secretion from the Trachea -

x Blisters act sometimes as expectorants from inverse Sympathy

* This Class Sweaten thro' Custom There is no Med: wh has a specific action on the Uterus - They act by the Stimulus imparted to the system by their long continuance

* & 3° Epispastics made of equal parts of Mustard & Cantharides - Boiling water to produce the effect Shd be applied for 5 to 10 minutes -

reduced or after a salivation has taken place. It is to be regretted that mercury is such a loathsome medicine; but man first sinned with her mouth, & to her mouth must medicines be administered to remove the effects of that sin.

Errhines. These act by depleting from the nose & are of 2 kinds, 1st those which deplete from the nose without producing sneezing, such as Sal ammoniac. Turbith Mineral &c — 2d Those which deplete from the nose & produce sneezing as Tobacco &c. #

Expectorants are* 1st Demulcents as flaxseed Tea horse radish &c 2d Emetics or Nauseating Medicines as squills &c. — 3d Volatile alkali, salts, smoke of Tar, beeswax resin &c. ✕

Expectorants are indicated in Pneumony, Catarrh, Asthma, Phthisis Pulmonalis &c here the 2d & 3d class should be used. Also in weak morbid action of the Lungs, here the 3d class is required. —

Emmenagogues* In suppression of menses attend to ~~should be administered according to~~ the action of the system: ~~In diseases of~~ In great morbid action V-S should be used & ~~these refrained from~~; but in diseases of weak morbid action chalybeates & exercise should be used. In this last case I have generally used steel; which I believe fails only when given improperly. Aloes & Madder are scarcely worthy of our notice as emenagogues. —

Blisters. These act 1st slowly as Cantharides & the bark of certain trees 2d Suddenly as boiling water.* They are indicated

*. In Suffocated excitement medicines sh^d be applied gradually, blood abstracted in but small quantity at a time - Cold water applied externally is always improper in the absence of heat & suffocated excitement there is very little —

× In diseases of the head breasts & joints

In Malignt fevers when we are fearful of Gangreene Blisters sh^d be applied to the thigh, shoulders, head & neck, & not on the extremities —

The Typhoid pulse is that wh^ch demands the use of Blisters - When they are applied with a Pulse above Typhoid, Pus is discharged in stead of Serum - If below, no discharge at all, or gangreene -

Gout & Pulm: Consumptn have been suspended by a slight eruption on the skin. —

× where danger arises from fulness or Pressure on parts essential to life

of medical Medicine: 4

1st in general diseases, here the first class are to be used. 2d In local congestions of the head bowels &c here the 1st class 3d In sudden congestions - here the second class is to be preferred. - X

The following rules are to be observed in the use of blisters. -

1st They should remain on until they produce a serous discharge

2d When applied to the head they should remain 24 hours

3d Small blisters never discharge much after the second dressing, new ones should be applied if necessary. -

Blisters are forbidden 1st In general diseases of great morbid excitement. 2d - In very weak morbid excitement. 3d In habits highly irritable & persons liable to suffer from Strangury. 4th In pregnancy. -

(There appears to be a blistering point in morbid excitement, above or below which it is improper to blister, & this point must be discovered by the pulse)

Issues are medicines to lessen the quantity of fluids gradually, as seton, caustics, perpetual blisters &c. Issues are indicated first when the gradual abstraction of morbid excitement is required. 2d In local congestions X 3d in cutaneous eruptions of the face or parts necessary to motion. Issues act directly or indirectly by equalizing morbid excitement & when the system has been habituated to their use they should be relinquished with caution. * I have thus mentioned the remedies for disease in an open & sensible form. We come next to the 2d class. viz -

Stimulants. – These I shall divide into 1 Stimulants properly so called or those which remove morbid action by exciting a stronger & less diseased action in the affected part or in some other part of the body, 2 or which remove morbid action from one part of the body by exciting in another part less essential to life. 3 and into Tonics or other medicines which prevent the recurrence of disease, by removing predisposing debility. Both of these act by converting excitability into excitement when they cure without abstracting any of the fluids of the body

Wine & Opium are diffusible stimuli, but all stimuli are more or less different in their action on the whole system. Here I exclude those sedatives which destroy irritability or morbid action by force such as camphor acetate digitalis and miasma, which resemble more the breaking down a door to get into a house than simply turning the key. But depletion should be used in most cases, in preference to such remedies: altho' depletion is certainly useful in hemorrhagies yet sugar of Lead often does good after it fails. In this case the lead acts by lessening the excitability. Consumption when cured by Opium & digitalis often returns. —

Stimuli to reduce great morbid action act as exercise & labour by reducing excitability; but in general they do great violence to the system & are much inferior to depleting remedies. They act more safely in muscular than in arterial diseases. Some

* The class of Stimulants are numerous - See Cullens Catalogue. I shall only add a few Receiles for their use

* Dr Sydenham always preceded Stimulants by evacuations as P. Vf. I.

diseases are however beyond the reach of depleting remedies, as Tetanus & the morbid grades of bilious fevers. Here the Opium & Bark cure by prostrating the system below morbid action & thereby wasting excitability. A Question now arises when are stimulants to be used? This must be regulated by the stage of the disease, the state of the system & more particularly by the pulse. When they occasion heat, a frequent & slow pulse they are improper. If they produce none of the above symptoms, but impart a fulness & slowness, they may be used with advantage, & the saying that there is a time for all things is in nothing so striking as in Medicine. — The Manner of giving stimuli is in rotation. Jones cured a case of Tetanus by giving 1st Wine 2d Bark 3d Opium 4th Brandy & water & then the wine again; but more of this hereafter. ——

1st Of those Medicines which remove morbid action by exciting a stronger & less diseased action in the affected or some other part of the body. Stimulants are of this class ~~& should be preceded by~~ Direct reducing the system both their power below their force by means of depletion. But notwithstanding this may hold good as a general rule; yet there are ~~two~~ exceptions to it. 1st When it is necessary to destroy irritability in Hemorrhagies by Sach. Sat: & in other cases by digitalis 2d When we dissipate excitability as in Tetanus. — 2d When excitability is greatly accumulated begin with small

+ for while large doses of stimuli convert the excitability into excitement & health small doses will dissipate the remaining excitability without being of any service

* and after you have given all, revert back again

& And you will thereby be enabled to continue longer with the disease

6 In chronic diseases stimuli shd be intermitted frequently, to let the stomach regain its excitabil?

doses of stimulating medicines & observe at the same time to defend the system from other stimuli, as light conversation exercise &c. For these by hurrying on the System will defeat the intention of the Medicine. In Pleurisy after bleeding once or twice endeavour to suspend the cough by Opium; 3 But when there is no accumulation of excitability, are lighting begin with large doses of Stimulating medicines,* ~~after depletion~~ especially in chronic diseases ~~& in the beginning~~ of Jail Fever, which attacks excitability nearly ~~exhausted~~ by indirect debility.—

4 Do not combine too many stimulating medicines, for they generally act best in a simple form, ~~but to this there are some exceptions~~ 5 Use them ~~in succession~~ or rotation;* for the system will often become insensible to one Stimulus; whilst another of weak action will affect it Liquid Laud: may be successful when Opium fails & v. v. Dr Dewitt tells us that a pill of opium ~~made~~ 6 Months old ~~before~~ will sometimes do good, when a recent one does harm; it is probable that no two medicines even of the same class exert precisely the same effects; The Stomach will sometimes bear quassia & not Columbo & vice versa. 6 ~~Chronic diseases as intermittents &c~~ require stimulants 7 Frequently change the place to which stimuli are to be applied. When the Stomach has been inured to Stimuli, apply them to the Skin or to the lower bowels which still retains its sensibility as Blisters to the abdomen &c—

* Generally when a medicine is exhibited per Anum the dose ought be quadruple

* 8 When you have done with Specific Stimuli prescribe such as may best agree with the state of the which prevails - or is to be acted upon We have said that there are Specific Stimuli

* This is explained by considering that there are different grades of excitability - & that Stimuli must be accommodated to the grade, that is - the Stimulus must Vibrate as it were with the excitability of the System ——

In chewing Tobacco only on one side of the mouth. that side is much less easily affected by the Tobacco than the other side which is unaccustomed to it. Even when snuff is taken into one nostril only at a time, it becomes at length more insensible to the effects of the Snuff than the other.

Opium when ineffectual in large doses in the stomach is frequently active when thrown into the intestines. -

Bark after becoming inert in the stomach is often active when injected into the bowels, or externally applied to the skin in the form of the quilted jacket *. Electricity when applied to the breast of a cock is said to revive, & cure the effects produced by it on the head. Opium obviates the effects of opium, when applied in another manner from the first. Mercury obviates the effects of Mercury, tho the practice be not safe. — *

~~Having admitted that there were specific stimuli we are obliged to admit an indefinite number of them, but those that are feeble from the various changes of the irritability of the system~~ An Emetic when the stomach has lost its ~~insensi~~ bility is inert; because its muscular fibres do not vibrate in unison with the medicine ~~Weak stimuli sometimes act when stronger fail~~ Strong Purges destroy the contractile powers of the stomach; when weak ones act by assisting in the recovery of that power *. I once ~~knew~~ a lady who could not bear the

x firing a Musquet &c &c — this proves the Specific ~~Stimuli~~ action of Sound

x Parsley tea has cured a Dropsy now parsley is a very feeble diuretic &c &c

x or equally essential but not worn down, See the Laws of Sensation —

⊙ By exciting a new disease in one part we lessen it in another

⊙ Morbid action of the brain is relieved by m: ex: being produced in the mouth by Merc: — Wepfer relates the case of a man being cured of apoplexy by being flogged — on acct of his refusing to be bled — this by inducing an ex: in the fraction by crying &c that pain is lessened in another part. Soldiers chew Bullets to relieve the pain of a flogging — Homer takes notice of Soldiers wounded in Battle biting the earth to relieve pain — hence the phrase "biting the dust" In this manner we read of the wicked weeping wailing &c this is to lessen or obviate their pain

noise made by the firing of cannon; but could distinctly hear ~~the noise made by pushing a pin thro a piece~~ of paper. I also knew a gentleman with hemiplegia, who was not the least affected by striking pins in the affected part; but by touching it lightly with a feather, could be immediately convulsed. *

¶ In all chronic cases stimulants should be given in the morning, because at this time the excitability is more accumulated.

10 Baron Humboldt says there is a certain relationship kept up between the different stimuli according as they are given in succession. Alkali for instance, will restore the excitability of the Stomach when dissipated by acids but acids will not restore it w^n dissipated by the alkalies. Do the alkalies act by exciting the dormant faculty of the stomach?

II° Of Medicines which remove morbid action in one part by exciting it in another less essential to life. X. Many Physicians do this without knowing it. Thus A head ache is cured by a diarrhoea. Natural Hemorrhagies by ¶ ¶. Morbid affections of the viscera; sometimes by exciting M or on the skin by Blisters. Dropsy, by diuretics acting on the kidnies. Morbid action of the Lungs, by Emetics acting on the Stomach. ¶ Apoplexy ~~by a troubling on the back, the morbid action being thus transferred~~ thumping. Hartley tells us that he gave a dose of nux vomica, & then severely whipped him, & the nux vomica had no effect, owing to the impression on the skin, pre=

In Consumption it is sometimes proper to create morbid action in the Brain by means of Opium or Spirits Here it is better to bring on derangement in the brain wh is more essential to life than the lungs, than to let disease be stationary in the Lungs, doing more inseparable mischief - Intoxication sometimes entirely removes Consumptn - In

* When Gout is flying about the body it is proper to stimulate the great toe wh has already been attacked by it in preference to the other when we wish to induce regular Gout by soliciting it to the extremities -

Dr Darwin mentions the case of a Man who was always recruited when he felt fatigued by thinking of a person whom he hated -

6 In the translation of disease the skin & bowels shd be preferred to any other part, but we shd make this our rule to seek out the weakest part, & if no part is more debilitated than another create a weak part by friction

One disease may be cured by generating another thus Pregnancy sometimes cures Hysteria by the translation of excitement to the bloodvessels - Climbing a flight of stairs has cured drunkenness by the muscles of the lower limbs being preternaturally debilitated & the translation of excitement from the brain bottom. Might

dominating in force over that of the stomach. Observe now that there is but one impression felt among those of unequal force, & that is the Strongest. 4th Rule You must reduce the morbid action below the Obstetric stimulating point, by that the medicine may at once predominate over the remaining morbid action. I observe again that there are exciting, depleting, blistering, & sweating points; which it is as necessary for the Physician to know, as that a mariner sh.d know the signs, which discover a port. —

2d. Take care that the part in which you excite morbid action be less essential to life, than the part from which you intend to remove it. To this there are some exceptions; 1st In convulsive Epilepsy delirium has been induced by opium with advantage. & 2d Tetanus is often cured by drunkenness. 3d In Phrensy it is most effectual to put a blister on the affected part, & in fevers it is sometimes necessary to bring on hunger to such a degree as to endanger life, in order to accumulate excitability in the stomach —

3d To prevent unsuccessful Practice enquire into the peculiarities of the patient, his habitual diseases &c but in dangerous diseases little attention is requisite to the effects of habitual Medicines

4th When the second morbid action which is excited becomes languid, a third must be excited, because pain from habit becomes pleasurable.

5th Attend to association in diseases, * instance, we stimulate the not exercise be useful in the treatment of Mania

* Debility is constantly attended with considerable relaxation of the Bloodvessels —
Altho debility is not a disease yet it is often worse than disease — Many people die of debility after the disease is removed

* We begin with small doses & gradually increase —
A much less quantity is necessary to remove debility — than is necessary to cure disease e g
When you wd prescribe ℥j of bark for removing disease you shd give ℥ss for a teaspoonful 5 or 6 times a day for obviating debility

Diet shd be first vegetable next animal or light broths next eggs, then oysters & wild meats afterwards meat boiled next roasted

~~feet in gout, because they are more predisposed to the disease.~~ –

In stimulants I include the passions, such as anger & terror; but the agreeable passions most often cure diseases by preponderating over painful impressions. I knew a man who could relieve himself at pleasure from the pains of Rheumatism by shaving. Pronouncing popular names, words, and events, sometimes relieve pain. Hope & faith have sometimes wonderful effects in curing diseases.

III° Of Medicines which prevent the recurrence of diseases by removing predisposing & succeeding debility. These I shall call Tonics,* & the rules necessary to be observed in their exhibition are the following.–

~~1st They are always to be exhibited in less doses than are sufficient to overcome the morbid action.~~ ×

II. 2° In your choice of Tonics always prefer such as are durable in their operation as aliment; in the use of which observe the follow.g rules

1st Always prefer that which is agreeable to the taste & stomach, & tho there sh.d be no appetite, still continue to give the aliment; for who would wait for an appetite to give medicine.

2° Recommend to debilitated persons to eat 5 or 6 times a day & once or twice at night if sleepless, for the stomach of a debilitated person is like a school boy, who if he be not busy is apt to be doing harm. A full meal however like poison sh.d be avoided. –

3° Accommodate the diet to the excitability of the System. ×

* When it is necessary to confine a Patient to a particular article of diet, we must not give it up too soon because it disagrees a little with the stomach at first, after a while it & the stomach may become naturalized to each other. —

4th Solid food should be preferred, as it makes the most flesh, while liquid food makes the most fat.

5th The less nourishing is preferable to that which is more so in cases of debility. Salt meat is preferable to fresh on this account.—

6th There are cases in which only one kind of food is required. A Gentleman in this City affected with violent stomach complaints was perfectly cured by boiled turnips alone. Boiled carrots are said to cure the asthma. Bread & milk the Gout. A diet solely of fish has cured certain inflammatory diseases. The Stomach prefers a homogeneous food. — Beef & Mutton have & Dressing cured dyspepsia, & oysters visceral obstructions.

7th A diet by weight & measure of the same aliment cures diseases. Dr Taylor was cured of Epilepsy by the milk of a Cow fed in the summer on grass, & in the winter on hay but was disordered as soon as he ate of the milk taken from a cow wch was fed on grain.—

8th Uniform hours in eating are strictly necessary. The sooner after leaving bed in the Morning the better.—

III Tonics Comprehend 3 Kinds of Drinks, these are 1st Malt Liquors. 2d Different wines as Madeira Sherry &c 3d Low wines as Malaga, Port, Champaigne, & Cider You see I do not include Ardt Spirits in this class for a man had better die than use this detestable Brunonian remedy. In chronic

+ Drinks are much more stimulating hot than Cold – hence the reason they sooner intoxicate

* From 110 to 100° of Farenheit constitutes the hot bath – 100 to 96 the warm
96 – 85 the Tepid
85 – 65 the temperate
65 – 32 Cold –

The hot bath is particularly adapted to the Plethoric state of the System – useful in the Cure of Mania

The Cold bath shd never be used when the body is debilitated or covered with sweat – It shd not be continued too long, or it debilitates. In great torpor of the System as in Mania ice applied to the head & hot water to the feet has equalized the excitement of the System –

@ When the warm bath is used the patient may continue in for 10 minutes to 2 hours & half the warm bath may be made more stimulating by the addition of common salt – & heat may be applied to the body thro' the medium of hot salt –

~ Exercise increases the action of the Lymphatics & muscular strength

cases they are are always injurious, as their use will finally create a love for them, which when confirmed by habit nothing can eradicate ×

IV 4th Cold & Warm Baths remove debility, & diseases of weak morbid action. The warm bath shd be used between 12 & 1, O-Clock only.* Temperature of the Tepid is 96, the warm 104 & the hot bath 108° of Fahrenheit. The warm bath is very much used in Italy. ⊙

acts as a direct ferment

The Cold bath acts indirectly as a Tonic abstracting heat & accumulating excitability; & dressing after the use of the cold bath converts the excitability into excitement. ~~To be the more effectual it should be used after the warm bath.~~

its 1st operation is sedative

I shall now make a few observations on the Cold.

1st It should be preceded by the warm. –

2° It should be temperate, when the water is cold it should be warmed & vice versa. –

3° It should be used 2, 3, or 4 times a day. –

4th In a warm room during the winter. –

5th Exercise & friction should succeed it. –

5th Exercise holds a great rank in the class of Tonics as obviating simple debility & may be divided into 1 passive & 2 active. 1 The former includes friction rocking in a cradle, chamber horse swinging, sailing &c. 2 The latter are walking, labour, swinging sailing &c. Riding on horseback is partly active, & partly passive. – 71

× The flesh brush made use of here may occasionally be impregnated with brine or Ardt Spirits.

* They frequently hold their brushes over vapours of Nitre previous to their application # It is remarkable that a Curried Cow will give more milk than one that has not been subject to the curry comb —

⊙ Dr Rush emphatically terms exercise the Morality of the Mat: Med:

⊙ Sailing in Balloons may be practised with safety, the gentle exercise & change of air together with the variety & conflict in the mind cannot fail to delight

The following are the rules to be observed in the use of exercise
1st In great debility, begin first with the passive as friction
The effects of which in overcoming debility are wonderful.[x] It in-
creases the action of the Bloodvessels & muscles, also secretion as
well as sensation.[‡] The Chinese are remarkably fond of this remedy
& carry it so far as to have professed frictors as we have bar-
bers.[*] The exercise of the hands as in shuttle cock, the good ef-
fects of this we see daily in Taylors Shoemakers Ladies &c. Swing-
ing sailing & riding in a carriage, are the next stage of exercise as
they occur in the open air. Swinging is useful when the patient
is not able to take other exercise. It was recommended by Dr Hay-
garth & J Smith in consumption. I cured one case of
this disease completely by swinging.[c] Sailing creates a disease
in the Stomach & thereby carries off the seeds & effects of the
primary disease.[D] ~~It also keeps up a perpetual conflict between~~
~~the passions of hope & fear. Sailors are generally healthy when the vessel is kept clear.~~
~~The Balloon only used formerly in time of war, may yet come to be used in cases of debility~~. Partial exercise as before observed
removes debility. A person held one hand in water at 62 and
by exercising the other it rose to 68 after it had risen only to
64 by the warmth of the house. Riding on horse back is highly
recommended in cases of Consumption.[v] It expends less exci-
tability than walking; which may be used in cases where it

* It removes the patient from the enquiries of friends after the health of the sick - which enquiries often do harm I have known a return of an Intermittent induced by a friend asking the patient 7 hours after the usual return of the fever whether he had escaped it. —

Labour of the arms best in Pulm: Consump-

is necessary to expend much excitability" 2° Avoid all fatigue. 3° Accommodate it to the state of debility. 4th The same rule may be observed in the use of exercise and eating; never take so much at a meal as render you unable to take more, immediately afterwards without injury. Patients are often in this respect ungovernable. 5" Exercise should never be prescribed before breakfast or immediately after a meal. Different kinds of exercise suit different diseases as exercising the muscles of the back in Nephretic # 6" Habitual Debility is to be removed by a change of occupation. 7th Travelling is an agreeable & useful stimulus from the exercise which attends it, the change of air & succession of new objects ※ 8th Change of Climate & of former associations are useful in nervous diseases, as Hypochondriacs. Hysteria &c Epilepsy stone & even Convulsions, are cured by it. ~~These are benefited by a change of climate~~, & men prolong their lives by the change especially old people when it is from a colder to a warmer one. 9" IX An uniform climate for invalids tho' different from that they have been accustomed to, is of considerable service to them. In certain cases of debility, a warm room from 70 to 74 day & night should be used, & in order to keep the room from being too warm, vessel of water should be kept upon the stove which will evaporate at a certain degree of heat &

* They act as tonics by the ingredients they contain by the degree of temperature & from the quantity taken in at a time – Purging mineral waters are not tonics consequently I am not speaking of them here – Mineral waters cannot well be imitated by art – They often do harm at first but after a while much good

Light reading as of Pleasant stories is beneficial to weakly people if not too long continued. They sh^d go to bed early & rise at the same hour – & rise every morning at the same hour, they sh^d sleep on their sides, & also on a Mattrass – When their diseases are attended with cold, they sh^d sleep between blankets covering with Eider down is generally best for them as a covering of this kind communicates as much warmth as 5 times its weight of blankets – Weakly persons had better be 3 degrees too warm than one too cold – They sh^d never expose themselves to the night air, & sh^d avoid venery. –

x Sleep protracted to 12 hours has given the system time to recruit itself, & patients have recovered after their livers have been despaired of

thereby cool the air of the room by its vapour. 10th Change of diet, dress & mansion is frequently of great service.—
11th Cheerful company & agreeable light reading obviate debility.—
12th Advise convalescents to go to bed early at a fixed hour & to rise at the same hour every morning.—
13th Strictly forbid their going into the night air, or moist weather, or gratifying the venereal appetite.—
14th Accommodate their dress to the weather. Their dress had better be three degrees too hot than one too cold. It should be loose; there should be no ligatures; flannel should be worn next the skin, & they should sleep between blankets.—
15th They should sleep upon a Mattrass, as a soft bed induces indirect debility, & alternately on the sides but never on the back, in debility; because the night mare frequently attacks in that posture.

Of the Medicines which remove single debility; of those the bark & steel are the best in direct debility. Strong drinks sometimes cures diseases by knocking out excitability, roasing dormant excitement & afterwards locking it up in the Muscles.— The Indians when fatigued, will rest themselves by carrying a large log sometimes a mile or two & then laying it aside.

Mineral Waters* do great harm in diseases of increased arterial action; but in nervous, bowel complaints &c They are extremely useful.— Rest is a natural tonic &

× Music has been esteemed a Tonic Milton & Boerhaave duly appreciated it as such —

* Accidents wh have produced terror have removed debility. —

⊗ They ought not be given in too large doses

× Large doses of Narcotic medicines have overcome debility wh has refused to yeild to all the tonic remedies in small doses. —

+ Sea air is also a stimulant & may be prescribed with the same precaution as the Mineral waters. —

Matrimony is also a powerful stimulus. —

Mercury in obstinate obstructions, from weak & languid action is one of our best remedies; even when the more agreeable fail. — *

In the use of Tonics always attend to the state of the System — for debility is the next door neighbour or threshold to disease and sometimes even worse than disease. ✱ There is a debility, below a certain point where the patient is unable to walk, as in Syncope, Palsy, Apoplexy, in which excitability is highly accumulated, here gentle & weak stimuli are proper. A few drops of cold water, friction, smell of burnt feathers &c will often do more service than the most violent medicines. Friction is generally better in Palsy than the more powerful Stimuli —

When excitability & excitement are nearly exhausted as occurs in the first stage of Malignant fevers & the last in the chronic diseases, the most powerful stimuli are necessary as caustic red hot iron, boiling water, fire coal &c But when a total destruction of a part takes place, which in animal matter is called gangrene, the stimuli sh^d be applied around the part as turpentine hot poultices, blisters &c with the internal use of bark wine & Opium —— ✗

× & 5 By the Lungs —

× from the sensibility of the Mouth, fauces & Stomach & their sympathy with the whole system

Tonics are exhibited 1st by the mouth 2d By injection 3d By nose 4th Externally. The mouth is the best channel for medicine. Opium may be given by way of Clyster, in this way it is generally necessary to administer 3 times the quantity of that taken into the Stomach to be as effectual. Spirits, camphor, volatile salts &c may be applied to the nose. Dr Chisholm of Montpelier with camphire & opium applied externally, cured obstructed menses; with digitalis, dropsy; & with bark & Spirits, all kinds of fevers. In this case I think the friction of the hand the principal means of cure. I have known Camphor & Opium dissolved in sweet oil to act like a charm in pains of the knees, wh. applied externally to the part. Shoe makers wax & burgundy pitch applied to the soles of the feet relieve head ache. Spirits to the abdomen relieve colic; sweet oil has cured archites; & when rubbed over the whole body has cured malignant fever; a warm hand has removed a pleuritic pain. The manner in which these medicines act is 1st by friction, 2d By exciting a determination of the fluids to the part. 3d By sympathy: Sometimes they all three combine. The parts to which these medicines may be applied, are the stomach, belly, inside of the thighs, near the perineum, soles of the feet, arm pits, back bone & anus.

There are some who have a susceptibility to one class of medicines or particular med: in a class in consequence of an Idiosyncrasy.

~ bele pus & Calcareous matter —

* For an acid in the stomach, Milk is excellent acid • & morbid bile may be obtunded by nitric acid — &

Of Medicines which remove diseases by abstracting redundant & foreign matters from the body, & which offend by their quantity or quality. These matters are mucus worms &c. & the medicines, vomits purges, diuretics, anthelmintics deobstruents sialagogues &c of which we have spoken before. — *

Of Medicines which remove diseases by mixing with & thus destroying matters which offend by their quality. 1st Magnesia destroys acids in the stomach by uniting with & neutralizing them 2d Bilious & renal calculi, by lime water, vegetable alkali, vitriolic acid &c 3d The Itch is cured by sulphur & mercury; the venereal disease by mercury. Demulcents are used to allay complications &c. They are flaxseed tea, decoction of bran, mallows sulphur mercury &c.

Of Medicines which cure disorders by removing obstructions. These as I said before are not the cause but the effects of disease. They produce disease by reacting, & occur most frequently in the visceral & lymphatic glands; thus we see morbid debility, disease & obstructions at the same time. These medicines are certain tonics called deobstruents, as bark, steel, mercury, arsenic, cold bath, external applications, local bleeding, fear acts powerfully & I think it is in this way that the royal touch acts. I will conclude this subject with observing that obstructions are the effects of acute or chronic inflammation, & where Tonics has been used in time they rarely occur. —

* The only two remedies worthy of Consideration under this head are oxygen gas & Carbonic acid gas taken into the Stomach – it exerts a manifest action on the Kidneys –

* Pain may be defined to be a tendency to a Solution of continuity in a part

Unless so violent as to endanger life, as in Colic &c

⊙ If shd be cautiously used, it appears to be better adapted to the relief of pain in cases of moderate action of the bloodvessels – When offensive to the Stomach it may be given by glyster When opium fails, henbane, hops, Hemlock shd be tried. –

⊙ The System is here reduced to the Stricture state

5 Cold air is useful in in great Morbid ⊕: thus relief is frequently found in throwing a painful limb out of bed. – ⊙ Ice is beneficial added to the water – It shd be continued a long time. – See next page *

+ given as a Glyster in colic – It is a great Stimulant to the muscular fibre – It will excite the action of the heart out of the body, when irritating it with a needle will not –

Of Medicines wh are supposed to cure diseases by changing the quality of the fluids or the texture of the solids. The only two remedies worthy of consideration under this head are Oxygen gas, & Carbonic acid gas taken into the Stomach — It excites a manifest action on the Kidneys. —

Medicines for relieving pain —

Pain may be defined to be a tendency to a solution of continuity in a part. As pain is the effect of disease, the remedies shd be accommodated to the state of the system. Pain is sometimes a remedy, & in this case it shd not be relieved, unless so violent as to endanger life, as in Colic &c

1st Vf relieves pain, as in Pleurisy. Headache Gout, Rheumatism &c & where the arterial excitement is general. — Cupping also relieves pain

II Opium in large doses relieves pain by inducing indirect debility, & thus reducing the system to the sleeping point. In giving large doses, care shd be taken that the seat of pain be not in a part where effusions are dangerous as in the brain &c — It shd be cautiously used — it appears to be better adapted to the relief of pain in cases of moderate action of the bloodvessels When offensive to the stomach it shd be given by

Glyster. When opium fails, henbane, hops & hemlock sh^d be tried

III Fasting relieves pain. Dr Priestly informed me that a criminal who was put upon the torturing machine bore the pain with fortitude by fasting 2 or 3 days before. Those who die of famine never feel pain after the first 4 or 5 days in consequence of losing their sensibility at that time the system is here reduced to the stricture state

IV Cold water eases pain when there is great morbid action This was often experienced in the Ly Fever of 93. When given by way of injection it acts like a charm in hemorrhoids. — Ice is beneficial added to the water, it sh^d be continued a long time Gentle effusion of water gives great ease in gout, but dashing it on the limb increases the pain. This verifies the act of the rich man in the Gospel, who intreated a drop of water to quench his thirst. —

V Cold air is useful in great morb: excitem^t thus relief is frequently found in thrusting a painful limb out of bed

VI Warm water acts as an Anodyne in great morb: e: given as a glyster in Colic. It is a great stimulant to the muscular fibre — It will excite

* A sheepskin or the maw of a cow on the stomachs of children frequently cures the Colic

* Horses frequently bete their cribs to relieve the pain of the Colic

the action of the heart out of the body when irritating it with a needle will not

VII Demulcents as Poultices relieve pain

VIII Sweet oil applied to the body lessens the action of the Pulse. The Ancient Romans relieved Rheumatism by baths of warm oil

IX Frictions of the hand — Lord Nelson in his last moments frequently called out "rub rub"

X Fear chases away pain when accompanied with great morbes:

XI Cheerful company

XII Hallowing — Gnashing the teeth, & Crying all mitigate pain. Women bear childbirth much better by crying. It is evidently injurious to smother our groans, however unmanly it may appear to give vent to them. A French Marquis once died by thus suppressing his feelings during a painful operation — Homer describes the dying Soldiers as biting the ground to ease the pain of their wounds

XIII Whipping relieves pain — Remember the case of the dog that was whipped after taking a large dose of Nux Vomica by Dr Hartley — He also gave another dog Arsenic, & then flogged him, & he discovered no symptom of pain for the Arsenic

XIV Pressure on the Abdomen relieves the tortures of the Colic. The Indians cure the Colic by standing on the belly of the sufferer for 10 or 15 minutes

XV A Gent in this City removed the pain of the rheumatism by applying a hot iron near the affected part

XVI Sounds relieve pain — I once heard of a man who was relieved of the pain of the Gout by making his servants sing very loud — It is in consequence of this that we seldom see many children cry at the same time — the child that cries the loudest generally silences the rest their pain being in a measure relieved. —

XVII Employment both of body & mind General Kosciusko relieved himself of pain in Petersburg by turning himself around. —

XVIII Small draughts of water when pain arises from great thirst — Dr Fothergill obtained ease in inflammat^n of the bladder in this way. "Water" "water" was almost the last cry of the expiring Lord Nelson. —

XIX Cutting the nerve leading to the affected part frequently relieves the tooth ache. —

XX Fainting relieves pain by a revulsive action

XXI Sulphur when pressed between the fingers cures Muscular spasm mechanically. —

XXII Mustard gives more relief applied near than immediately on the affected part — this is explained by the affected part being preoccupied by morb: ef: Pains in the Stomach & bowels are most effectually relieved by sinapisms of mustard to the feet

Periodical Pains are best cured by the Bark or Asafoetida accord^g as they affect the Arterial or Nervous system. —

XXIII The sight of a long absent friend has roused expiring nature, & performed cures after medicine has lost its effects. —

XXIV Resentment — The Indians bear torture Heroically for resentm^t at the insults of their enemies.

XXV Metallic or other sharp pointed instruments

XXVI Animal Electricity & Magnetism

These act by the Principle of faith & by concentrating the mind to one object

XXVII Counting a hundred backwards. —

Might not Surgical operations be rendered less painful by being performed gradually. The Sur=

geon might retract the knife for a few moments & then proceed. Nature shews us the necessity of intermissions in pain, were this not the case what woman could support the pains of parturition?

What wd be the effect prior to an operation, of rendering the system insensible by a large dose of Opium? Drunkenness has rendered a woman insensible to the pains of Parturition. —

Means of obtaining Longevity.

This is not foreign to our subject — In life there is a constant tendency to death, & longevity is only obtained by accommodating excitant to excitability

The same rules wt preserve life do not answer in all cases, but we are to be regulated by the different states of the system. Let clothing, diet, drinks, amusements, exercise, &c be accommodated to the different habits & states of the system as varied by age &c

I cannot dismiss this subject without expressing my regret that there are so few books wt are not written empirically — Few are written to accommodate remedies to the different states of the sys

ten hence the many contradictions in them

Few medicines act alike in the same disease at different times — thus opium at one time relieves pain & at another increases it It is thus with all medicines In short medicines are only relatively good, that is they only do good when suited to the different states of the system. When I hear that V.S. is prescribed in Fevers or in Cynanche Trachealis, without attention to the state of the system I feel as if I were listening to regular bred quackery. Such Physicians remind me of the Bermudian Sailor who on his passage to the W Indies threw shingles into the sea, in order to find his way the more easily back. As well might we expect that the alphabet when jumbled in a box wd fall out in the form of an Epic Poem, as that medicines wd cure diseases when thrown into the system without regard to the symptoms & stages of disease — or in short to the state of the system

Here then Gentlemen we take our leave of Therapeutics, & come next in order to the last subject viz The Practice of Medicine

* In our Therapeutics we considered the general remedies for disease as an unit — I shall now consider the remedies for it as it appears in its various forms or what are called individual diseases — I shall not enter into copious & minute details for books respecting the causes, nature, symptoms & cure of diseases this wd be unnecessary, as the best authors are in yr hands or may be easily procured — I shall deliver to you the concentrated result of all that I have found from reading, observation, hearing & thinking for more than 50 yrs past.

It has been the fate of Med. in all ages to be much injured by the Phenomena of diseases being explained upon the principles of prevailing & fashionable Sciences — Thus the actions & the functions of the human body after the discoveries of Sir I Newton were explained on Mathematical principles — Next upon Metaphysical by Stahl — Hav the Elements endeavoured to illustrate them — & lastly as in the Sciences of Nat Phys & Bot — it was attempted to render the study of diseases more easy by giving to each distinct names, dividing diseases as they did plants & animals Let it not be supposed that I wish to deprecate these sublime & useful studies, but they shd be treated as the assistants or handmaids, & not as the directors of our science they shd be allowed to follow after — not to go before — I shall therefore reject nosology altogether — I however must make a distinction between nosology & Nomenclature of diseases — By Nomenclature I mean such names as convey ideas of the grades & seats of morbid excitement —

The Practice of Medicine.

Gentlemen We come now to apply the principles laid down in our Physiology, Pathology & Therapeuticks to the Practice of Medicine. This is the most important part of our Science. It is that point to which all our pursuits in the science of Medicine are directed, & happy is he who from the principles laid down deduces a rational & successful practice.* ~~The question that first arises is what arrangement in diseases is the most proper? It has long been a custom to divide them into Classes, Orders &c~~ Genera Species this is what is called Nosology. This mode of division was first suggested by Sydenham it was followed by Cullen &c # ~~But notwithstanding I received my Education in a Nosological School I have long since rejected it, because the experience & reflection of many years have informed me that it led to many errors in Medicine.~~ 1st Nosology is incompatible with Anatomy & Physiology* ~~2d Diseases cannot be divided into Classes &c like Ani-~~

* See next page ⊙

*: from Predesposition, Time, Climate Seasons &c —

* Many diseases seated in Dispersular parts exhibit the same symptoms — Pain is often seated in a part remote from disease & pain has destroyed life without dissection shewing any disease at all

for 1 Many of the Viscera are endowed with but little sensibility, & many diseases have been discovered on dissection wh during life gave no pain — 2 Certain parts of the body have such an intercommunion of sensation that impression made on one part produces sensation in another — 3 Different parts of the body possess different degrees of sensibility & irritability & exhibit very different symptoms when they are diseased —

* The exciting causes are only irritants — Diseases therefore are not to be divided according to their exciting causes — Nor can a division of them be formed upon their proximate causes for they are also an ignis & nothing more than

Nr: ex: wh produces different grades of the same disease — Sudden pain as opposed to Palsy &c

III Morbid is incompatible with the changes wh are produced from Predisposition Time, Climate Seasons &c State of Society &c — The Asiatic Plague & american Yellow Fever are only one disease varied by the diversities of climate &c

These often blend several diseases together, & by what name then shd we designate them?

2 Nosology is incompatible with the ~~exciting~~ causes of disease which are an unit since debility is only the predisposing cause & morbid agent the proximate cause & the same exciting cause produces different diseases * disease like fire is an unit let it be brot on by what cause it may

3 Nosology is incompatible with the proximate cause viz mob: excitent wh produces different degrees of the same disease as Palsy Apoplexy Syncope &c

4 Nosology is incompatible with the Character of Epidemics # for Sydenham says they often combine & run into each other in London

5 Nosology is incompatible with the seats of diseases, for we often find them occupying every part of the body in succession now we can with as much propriety give a different name to the rain wh falls on the hills in distinction to that wh falls in the valleys &c as to give different names to disease, as it changes from one part of the body to another — Yellow Fever in a few days occupies every part of the body & at every change gets a new name But the Gout let it occupy as many parts as it will, is Gout still — ~~Last summer~~ I attended a lady in the ~~Yellow Fever~~ ~~Gout~~ Yellow Fever in the Bowels or as nosologists wd term it Enteritis

* as the forming, the active & the declining stages every one of wh requires different remedies

* It is also opposed by the ambiguity or absence of symptoms — The Hepatitis often appears in India without producing any symptoms — A few or no symptoms are produced by tubercles in the lungs — Many fevers appear with very different symptoms —

2d in the Stomach Gastritis - 3d Cystitis 4 ~~Hepatitis~~ Nephritis
5 Pyoris 6 Hepatitis of wh she died Now will
any Nosologist say that this woman had 6 diseases or Combinations of diseases - She had but one disease & that was Nurb. of —

Strange Nosology! You allow gout to be an Unit & why divide fever into as many different diseases as there are Symptoms or Seats

VI 6 Nosology is incompatible with the States Stages & changes of disease. It takes no notice of these ~~changes~~ stages * - Diseases cannot be divided like Animals & plants into Classes Orders &c for it is impossible to change an Ox into a Lion or an Oak into an Apple tree They are the same now, as they were one day after the Creation - By Not taking notice of the Stages of disease, has rendered many diseases fatal wh might otherwise have been cured —

VII 7 Nosology is incompatible with the seats of diseases * how often do we on dissection find parts wh from the Symptoms before death we had reason to believe were diseased, perfectly sound & vice versa Heberden relates the case of a man in his 50th year who was affected with pain & sickness at Stomach this soon left him & was succeeded by pain in the

* Dr Cullen places Apoplexy Palsy Madness & Diabetes among the list of nervous diseases tho' they are of a febrile nature & affect the arterial full as much as the ~~arterial~~ nervous System if not more — He also places Dropsy & Scurvy among the Cachexies, tho' the former is mostly of a febrile nature & the latter frequently so —

* & particularly when they are under 2 yrs of age

⊕ when they are attacked by internal disease for they like children are unable to tell us the seats Symptoms & causes of disease

region of the Liver, This was followed by pain in the calf of the right leg, but without swelling or discoloration — this was succeeded by profuse Diarrhoea of wh he died — On opening the body instead of finding the Liver, Stomach & Intestines diseased as was supposed, they were perfectly sound, but a large abscess was found in the Spleen. What becomes of Nosology here? Who could have told the Spleen was diseased from the symptoms? I could enumerate 100 such cases if necessary

VIII 8 — It is contrary to truth, for it combines diseases wh have no connection — +

IX 9 Nosology excludes for our knowledge most of the diseases of children particularly those of the viscera * for how will they give a history of their complaints when they cant speak? — But I shall say hereafter that by the appearances of the eye, the countenance the Pulse &c we can judge as well of the diseases of children as of grown people by this doctrine of the unity of disease

X 10 It dooms all our Domestic Animals to death for their want of speech

XI 11 Nosology has been productive of much mischief does great harm

1st It does not allow of attacking disease in its

× I have said that debility is the predisposing cause of disease, & by removing this, the accession of disease may be prevented – But Phrenology does not allow of this

× & thereby lost his Patent

forming state, but must wait until it takes on its Pathognomonic symptoms, or developes itself to use the expression of a Dr in Virginia, who was called to prescribe to a Patient but absolutely refused to prescribe the succeeding days, saying the disease had not developed itself & he was waiting till it shd that he may know to what Genus or Species it belonged. that he might prescribe accordingly. And I suppose he derived great credit for his sagacity in not prescribing for a disease wh might probably have been cured in its incipient state by a drink of sage tea, or a mild Cathartic — This is Prosology! he was right, for if a man is honest, he cannot prescribe until a disease developes itself whereas our doctrine enables us to attack disease in its form. state & cut it short as it were in the germ.

2d It does harm by making as many diseases as there are symptoms — An inflammatn of the lungs is precisely the same thing whether it be induced by gout or arises from cold, & requires the same remedies — There is no difference between inflammatn of the lungs & bowels — Gangrene is the same whether from heat or Cold — Hydrocephl

* for every form of Ur et

* & by occasioning different remedies for the same same disease in different parts of the body

* Nosologists thinking different diseases to arise from different causes have prescribed different remedies for them

* Ur^n are apparently very different

* It is no objection to our doctrine that we vary doses of Med: to meet the different forms of morb et —

Intern: is the same thing whether for worms in the bowels or Contusions on the head

Rheumatism is the same whether for heat or Cold yet Nosology makes all these different diseases — This prescribing for the names of diseases has slain its thousands & that too in the hands of regular bred Physicians. —

3 It leads us to suspect different diseases accord^g to the cause & to apply ~~improper~~ different remedies ×

4, It does harm by having a Specific for every disease — *

5 It does harm by having a remedy for each symptom —

6 It does harm by prescribing the same remedies in different stages of the same disease

7 It does harm by unnecessarily multiplying remedies for diseases, hence has Originated the Lung wort Liver wort Spleen wort Kidney wort brain wort &c — Now we can expel all these for the M Medica & have a sufficient number left by a proper Combination of them to cure all diseases — this is not mere abstract Reasoning — the same remedies cure Mania & Rheumatism × &c viz V.S. Cathartics, low diet &c *

* No Nosology has done harm by causing Physicians to neglect the works of Sydenham just as the too frequent use of Prayer Books causes us to neglect the perusal of the Bible

* A quaker Preacher of this City riding into the Country got into a quagmire. about a year afterwards happening to ride the same way on the same horse he again came up to the quagmire wh had now become dry & hard. The horse however refused to pass it & after several ineffectual attempts the Quaker made this exclamation "Horse thou hast a good memory but a bad Judgment. Just so it is with the Nosologist he has no need of a Judgment & the less he thinks the better. It is very different however with Practitioners who believes in the U of disease. Simple as the doctrine appears, yet a great deal is required. It requires the constant exertion of every faculty of the mind. Every state of the disease Elevated Excitement Debility Oppression, Prostration the in-

8 Nosology does harm by Allow^g certain Pathognomonic Symptoms - this divided the Physicians in G3 - One denied that the prevail^g fever was the Y.F. until he saw the Yellow Skin while others looked for the black vomit

9 Nosology has done harm by getting our Art the name of Conjectural & uncertain, when if the unity of disease had been believed, it w^d never have received this name. - *

10 It does harm by requiring the exercise of the memory without the judgm^t - Cullens Nosology may be compared to a house having 100 rooms, each requiring a different key to open it - The unity of disease to a Master key w^h unlocks the whole Nosology requires only to name a disease & to draw upon the memory for a remedy, w^h fixed in the body must cure it Nosologists have good memories but bad judgments - * Nosology is acquired with difficulty but its application to practice is very easy whereas the Knowledge of the unity of disease is soon acquired but difficult to be practised judiciously It is said that some of the most eminent Physicians were Nosologists as Cullen Sydenham &c but the fact is that when they this is true for a sound judgm^t will often

Remissions, Remissions, Exacerbations must all be attended to. Since they all require the constant exertion of the mind. The Constitution & Habit, the Season of the year, the Convalescent state, & all the different remedies. The Combinations of Epidemics requires the constant exercise of the Judgment. The Unity of disease places a Physician in the situation of a Mariner in an unknown & varying latitude & a boisterous sea, who is obliged to keep his eye constantly upon the Compass, & reef & unreef his sails hourly as circumstances may require. The difference then between Nosology & the doctrine of the unity of disease is simply this that the Nosologist acquires his profession with difficulty & practices it with ease whereas the Knowledge of the Unity of disease is easily acquired but is difficult to be practised judiciously

I have said that Anatomy & Physiology were in Opposition to Nosology. The same disease in different seats produces different symptoms, & the different parts of our viscera produce different sensations, when they are diseased. Thus ~~there is a~~ disease in the Cerebrum & Cerebellum is attended with different symptoms, & the pain is different.

© Why not then appropriate different names & different remedies to disease as it appears in these different parts of the body. Should we proceed thus the diseases of every nerve muscle & Lymphatic gland wd require different appellations, or a name must be given to disease as it affects each of the component principles of these parts

But the of Dr Sydenham have furnished the most complete objections that can hopefully be offered against nosology

the faults which wd otherwise arise from theories - But the fact is that when these eminent Physicians came to the bed side of their Patients they laid aside their Nosology — & practised accord^g to the dictates of Judgmt & reason — #

~~There is a difference between the pain in the Cerebrum & Cerebellum,~~ Also, between the external & internal part of the liver, between the neck of the bladder & its body — between the large intestines & the small — hence accord^g to Nosologists we sh^d have external & internal Hepatitis &c — for I insist that all these are entitled to their names, Now if we admit these large divisions ~~we must the small~~ nosological divisions in the large & important parts of the body we must also admit them in the subdivisions of these parts

And if these divisions are proper here, why are they not in Anatomy & Physiology ff — for such reasoning the mind turns with loathsomeness & disgust! — Where was the boasted reason of man when ~~they~~ nosology was first ~~adopted~~? Where was the great mind of Sydenham when he first ~~arranged them~~ proposed it? We read that the prince of poets sometimes sleeps let us suppose that the prince of Medicine Sydenham slumbered at this time — ~~In embracing the theory of the unity of disease~~ ||

Thus Gent: have I convicted nosology of Falsehood, Error, Strife, Mischief, & Murder — who will say any thing in its behalf? — None — Then I pro

† Depart then thou many headed monster of folly & mischief to the dark cavern from whence thou camest; — there writhe & gnaw thy chains over the musty bones & mouldering remains of thy unfortunate victims until thou art Dead dead, dead —

so long as ~~it~~ posology keeps its present strong hold among Physicians & occasionally among our Patients

ceed to pronounce sentence upon her — Sentence pronounced

In embracing this theory of the unity of disease let us not forget the age & country in wh we live — Some truths, like certain liquors, require young & strong heads wh like yours, are not yet callous by prejudice to bear them — It will require such as yours to bear the strong truth of the unity of disease —

We ought however to know Dr Cullens names for diseases for many people will think you dont know how to cure them unless you tell them some name for disease — We shd conform so much to custom as to speak of disease in the plural number — — A Lady in London was bled, a few days after she was greatly alarmed at a small dark spot wh appeared over the incision — She sent for her Physician again to enquire of him what it was — he told her that it was nothing more that a spot wh frequently succeeded it & that it wd disappear in a few days — this did not satisfy her & she consequently sent for a second he made some application but did not give it a name who made a similar reply — her fears were now increased & she sent for a third who upon look-

† Tho' there are weak diseases yet even in them there is morbid action

* Sthenic & Asthenic or

immediately exclaimed
at it cried out "Ecchymosis Madam Ecchymosis
Madam" gave her some trifling medicine to ap-
ply to the arm & departed - the lady was then com-
pletely satisfied - she dismissed her former Physician
for this last, & held him in the highest esteem
merely because he named her disease Remember
ber this Gent: & always be ready to Ecchymose
Morb: Excitent for a while, until the nature of
disease be completely established - I will re=
commend Cullen as a Nosological Author ..

Dr Brown has made another division of
diseases into Sthenic & Asthenic, or Action & Debility I object to
this division 1 Because debility is not a disease ×
2 Because* weak & strong disease alternate
they pass into each other half a dozen times a day

Dr Darwin has divided disease into four
Those of Irritation Volition, Sensation & Association
but as well might we divide the clouds by their
different colours on a windy day, for what
has Volition to do with disease when they all ori-
ginate from the same cause His principles are bor-
rowed from Dr Browns & Cullens consist only of
a new arrangement - except the Lymphatics on
which he has thrown considerable light - His

† But for the different relations & associations wh exists between the different symptoms in the various states of society I was obliged to give up this plan

* The unity of disease admits of every possible form of morbid but nosology admits those diseases only wh the has named ~~Nosology may be cured~~

†† Thus pursued Gent: we have no retreat but in the unity of disease

I have thus attempted to refute an error wh have existed almost from the foundation of the world & I have paid a high price for making the attempt I have mentioned but a few of the systems of Nosology but however numerous, & by however respectable authority they may be supported they are all equally opposed by the U of disease

facts have enriched medicine —

I formerly attempted to arrange diseases as they affected particular parts of the body, as the Bloodvessels, viscera &c — ~~But I have since relinquished it seeing its Error~~ — the same disease leaps from system to system, & perhaps before its cured occupies them all* — Nature, it has been said, abhors a vacuum, I say she equally abhors Nosology — Hippocrates compares diseases to a circle, to wt there is neither beginning nor end — But the unity of disease may be compared to a point not to a circle — Nosology may be compared to a court wt takes cognizance of high crimes only — the unity of disease to a system of morals wt not only takes cognizance of high crimes, but does not let the smallest go unpunished ||

I have divided diseases into two great classes

I Such as affect the Bloodvessels

II Those wt affect the Bloodvessels, nerves, muscles viscera &c inclusive — Yet I do not confine fever exclusively to the bloodvessels therefore this arrangemt is imperfect — but it is necessary we shd have something of

X Diseases have been distinguished by their Symp=toms — These are divided into primary, Secondary Pathognomonic & Common

1 Pain is the Primary Symptom of Pleurisy

2 Cough is one of the Secondary Symptoms & arises from the Pain

3 The Pathognomonic are those Symptoms wh. are peculiar to & distinguish the existence of particular dis=eases

4 The Common Symptoms are those wh. ap=pear in all diseases or in most of them —

* Thus what follows is all in Rush's Inquiries

Fevers

the kind — It is a difficult thing so to arrange disease as to treat of it in order ×

I have before said that the blood vessels were the out posts of the system, where they labour much for the benefit of the system & from their exposed situation are much more subject to disease (viz fever) / Before proceed^g to the immediate consideration of fever I shall deliver some general observations

I Fever is always preceded by general debility either from action or abstraction, no matter which only from abstraction is most apt to produce it but that they both produce it by expending excitability — That fever is produced by general debility I infer, 1 — From the causes which produce general debility — violent passions of the mind

II When debility is produced, a predisposing cause is produced, for debility is not sufficient to produce fever — reaction must take place in the bloodvessels to produce it & the cause of this reaction is the exciting cause of Fever — this will at once explain what I have said before of the ~~exciting cause of fever~~ bloodvessels being the out posts

of the system, but altho' I admit reaction I deny the vis Medicatrix of Cullen — It is a simple reaction of elasticity & Muscularity — That the arteries are Elastic & Muscular has been proved by Mr Hunter — If we throw a ball against the wall, it will rebound back again is it because the ball possesses vitality & sends it back? No, Just so does the system. —

(The unity of disease altho' it does not require so great a memory as Nosology yet it does not beget Idleness, on the other hand it requires very close attention to the remote Predisposing, exciting & proximate cause of diseases & also to the State of the System —

In the Practice of Medicine attention shd be ~~first~~ paid 1st To the predisposing cause

2d To the force of the disease

3 To the intermissions, remissions, & exacerbations

4 To the seat of the disease

5 To the Constitution & habit

6 To the Season of the year, for diseases in the time of an Epidemic require a treatment more or less similar to the prevailing Epidemic —

7 To the debility preceding the crisis of the disease
8 To the Convalescent state — All these considerations shew that the practice of Medicine accord^d to the unity of disease, requires more attention than when regulated by Nosology — The Unity of disease places a Physician in the situation of a Mariner who must in the Pathless Ocean keep a steady eye on the Magnetic Needle & who has to let go his halyards - reef & unreef his sails, hourly as occasion requires)

Many definitions have been given of disease but they are all exceptionable — Cullen defines disease to be an irregular & defficient performance of the functions of the body & mind, but this is incorrect, for we see disease exist without the functions being perceptibly deranged - if he had added generally it w^d have been more proper

III Fevers are not general, I have said before that there was no disease of the whole system hence we see
1 The bloodvessels affected & not the heart
2 The whole arterial but not the Pulmonary & vice versa
3 One side of the body & not the other
4 The internal bloodvessels but not the external

While this increased action is going on in the bloodvessels debility is more in the Stomach bowels &c by the excitement being abstracted from them to the Arteries - this is an error loci We will apply this to fever

1st Has the body been debilitated by cold? does not fever ensue?

2d Has it been debilitated by the abstraction of heat - the change of wind from South to North or any sudden change in the weather from heat to cold? is not fever excited? —

3 Has the body been suddenly debilitated by violent exercise? is not fever produced? But it may be asked, how are we to act for fever produced by S. pox or Measles? I answer that the contagion produces fever Still the system is in a depressed state - There is a difference in the effects of stimuli when accompanied with predisposition & when not, in the last it is equal - but in the first it acts with greater violence & thereby produces fever &c

V 5 There is but one remote Cause of disease & that is stimuli This causes Pleurisy whether from heat or cold; from translation of Gout whether produced from Y Fever Measles, S Pox or what not

it is an unit & requires nearly the same treatment
There is however a seeming objection to this, for
how does cold, want of sleep - great evacuations
&c act as a stimulus to produce fever - I an-
swer that they destroy the equilibrium of the
system, & thus act as a stimulus thereby produ-
cing fever. —

6th There is but one fever whether produced by
heat or cold or whatever cause, still there is
but one ~~fever~~ description - I exclude from this local injur-
ies wh by irritation draw the whole system
into sympathy & action - The irregularity of
the action of the arteries in fever is different
from that irregularity produced by exercise. —

From all that has been said, I conclude that
fever consists in the irregular & convulsive
action of the Bloodvessels - but there are 2 kinds
of this irregular action

1 The irregularity of the bloodvessels
2 The irregularity of the determinations of the
blood to different parts as the head, liver &c
The same cause may produce debility depression & op-
pression, in wh case the bloodvessels is as it were

taken by storm — I repeat it again fever consists in morb: action alone & Inflammat^n Effusion are the consequences & not the causes of the fever — This distinction is useful & necessary as it enables us to cure fevers in their form^d state before Inflammat^n & effusion has taken place — tis very seldom that the arterial system is affected by being brot into sympathy wth any of the Viscera being originally affected — [Inflammatory fever is not the highest grade of morb^y in the B vessels — It sometimes transcends inflammat^n — It is sometimes so violent as to leap over all the usual forms of disease & terminate directly in death]

From this view wch I have given you of the state of the bloodvessels you will see the difference of my opinions & Dr Browns — He supposed fever to consist in debility — I do not admit debility to be a disease, but place it wholly in morb^y: invited & fixed by previous debility — He makes disease to consist only in a change of the natural action of the B vessels — I maintain that it consists in the preternatural & convulsive action of the B vessels — Lastly Dr Brown supposes excitement & excitability to be equally diffused but

in unhealthy proportions to each other - my theory places fever in excitement & excitability irregularly diffused manifesting themselves at the same time in morb: action depression & debility fm abstractn in different parts of the body - No new excitement fm without is infused in the system wh excite fever they only destroy its equal & natural distribution for while the Arteries are in a plus state, the muscles, Stomach & Bowels are in a minus state of excitement & the business of Med: is to equalize it in the cure of fever, that is to abstract its excess fm the bloodvessels & to restore it to the other parts of the system. - Morb: actn in the b: vessels whether it consists in force or frequency, or preternatural force without frequency, or frequency without force - Constitutes fever - Except in the force & frequency of the pulsations of the Arteries have been considered as the characteristic marks of inflammatory fever. —

There is however a much greater excess of irritating impression upon the Bvessels - These are preternatural Slowness, Intermissions & Depressions in the Pulse such as occur in Malignt fever But there is a grade wh transcends inflammatn —

inflammat^n I ~~only~~ consider as the 2^d grade, the first & highest grade occurs in Hydrophobia Dysentery & Colic &c — In vain have Physicians sought by dissections the causes of fever in those cases followed by death in those parts of the body w^h were supposed to be diseased from Pain & other symptoms — No marks of inflammat^n nor of the least deviation from a healthy state have been found — I have ascribed this apparent absence of disease to the vessels being too highly excited & thereby too much contracted to admit the entrance of red blood into them — I wish these remarks to be remembered, they have delivered me from the influence of several errors — & they are capable, if properly applied I allended to of leading to many important deductions in the practice of Physic

Effects of fever when not removed by Med:

1 Inflammat^n from an effusion of red blood into the serous vessels, constituting what Dr Boerhaave called error loci

2^d Effusion of the Serum of the Blood

3 Effusion of the Lymph w^h sometimes forms itself into a membrane w^h adheres — e.g. in the Larynx in Cynanche Trachealis, or into the Thorax in Pneumonia

4 Secretions of Pus also Sloughs

5 Effusion by rupture or a congestion of all the component parts of the blood

6 Gangrene from the death of the Bloodvessels

7 Redness - Phlegmon, Pustules, Petechiæ on the skin & tubercles in the lungs, liver, bowels, &c

8 Air in the cavity of the intestines

9 Scurvi

10 Calcarious & other earthy matters -

11 Death — this arises from the follow^g causes

1 Sudden abstract^n of the excitability of the blood

2° A disorganizat^n of parts eminently necessary to life -

3° A change of the fluids so as to render them destructive to parts called vital, or vital organs.

4 Debility from the exhausted or suspended state of excitability of the bloodvessels —

All these effects of fever are different accord^g to its grade — Dr Blane says fevers are rarely in the W Indies - they pass rapidly from simple morb: ex: to congestion Hemorrhage gangrene & Death - this remark is confirmed by Dr — who says the Pneumonia among the Negroes in the French W India Islands rarely appears in any other form than that of the Notha from the arteries in the lungs being too highly stimulated to produce

common inflammat^n but such is the force of Morb: ex in hot climates that it sometimes runs over all its intermediate steps & discovers itself only in death. —

Fevers may be devided into 3 Classes

I Such as affect the Arterial System but without any local affection

II Such as affect the whole arterial System accompanied with evident local disease

III Such as appear to pass by the arterial System & fix upon other parts of the body — these I shall call misplaced states of fever

The first Class includes the 13 primary forms

1 Malign^t

heat, but principally appear in an irregular action or convulsion in the Sanguiferous, but more obviously in the Arterial system, which predominates so far over the rest that I shall call it the proximate cause of fever (for an account of which I refer you to my inquiries). * Fever consists in an irregular action or convulsion & induces death without inflammation or effusion. Morbid action alone (I repeat) constitutes disease, ~~& its effects~~ and the effects of disease are Inflammation, effusion &c. This distinction is necessary & useful. It enables us to cure fever before either inflammation or effusion takes place. This idea of morbid action teaches us not to attend solely to the appearance of the blood, but to the state of the system &c. ~~This~~ I shall divide into 3 Classes of fevers, or first division

1st Such as affect the whole arterial system with none or but little local affection; × of these first class there are thirteen states or primary forms.

1st The Malignant state of fever; this constitutes the highest grade of inflammatory diathesis. It is known by attacking frequently without a chilly fit, by Coma, a depressed, slow or intermitting pulse

*Such is the excess of force that it sometimes produces general convulsions - ~~#~~ Tetanus & Palsy see below

× It is the effect of a higher grade of disease than typhus & is not the effect of putrifaction as many writers suppose

Measles in Hydrophobia & after taking Opium & other stimulating med:

0 & sometimes extinguishes life by means of Apoplexy & Syncope The less violent degree of stimulus in this state of fever produces Palsy of the bloodvessels - It begins probably in the veins & extends gradually to the arteries It seems to begin in the extremities of the arteries & extend to the heart this is evident from the total absence of pulse wh sometimes takes place 24 & once 48 hours before death But there are cases in wh this Palsy affects the arteries & veins at the same time It is probably from this simultaneous affection of the bloodvessels that the arteries are found to be nearly free of blood after death from Malignt fevers - the depressed & intermitting pulse wh occurs in the beginning of these fevers depend upon a tendency to palsy in the arteries independant of an affection of the heart or brain This prostrate state of fever when left to itself frequently terminates in Petechiæ Buboes Carbuncles Abscesses & Mortification as Serum, Lymph or red blood is effused into the viscera or external parts of the body. These morbid appearances have been ascribed to putrifaction hence the fever has received the name of Putrid - the existence of Putrifact: is rendered improbable 1 By Dr Sybers experiments wh prove that it does not take place in the blood in a living state 2° By similar appearance with those wh have been ascribed to putrifaction

see bottom of next page

& sometimes by a natural temperature or coldness of the skin. The arterial system is here prostrate. It occurs in the plague, Yellow Fever, Gout & Small Pox, also in a case of Pleurisy under the care of Dr Quin of Jamaica. It is the effect of such a degree of ~~stimulus~~ impression as to prostrate the arterial system, & to produce a defect of action from an excess of force. It may be called a depressed state of Fever, & when left to itself terminates frequently in Petechiæ, Bubboes, carbuncles, Abscesses, Mortifications &c

II^d The Gangrenous Dr. This is the issue of a violent inflammation left in the hands of Nature or accelerated by stimulating Medicines. —

III^d The Suffocated.

IVth The Synochus fortis Dr. This is known by a full quick & round pulse without tension. The Autumnal bilious fever & Cholic, also the Gout often appear in this form. —

V^th The Synocha Dr. or common inflammatory state of Fever; this attacks suddenly with chills & is succeeded by a quick, frequent, & tense pulse, great

* It is generally imagined that when a fever runs on to 20 or 30 days, it must necessarily be a Typhus - This is a mistake There are 4th Chronic inflammatory fevers wh Continue very long & require very different Modes of cure to what Typhus does - ~~We are not to suppose~~ It differs from the other states of fever by want of regularity in its Paroxysms in wh chills, fevers, & sweats are induced, & by the brain nerves Muscles & Alimentary Canal being little impaired in their functions - It appears to be an exclusive disease of the Bloodvessels - Occurs in Pulm: Consumpt in Lues, Scrophula Gout & after most of the states of fever wh have been described - Pulse Various Occasionally Synochoid Typhoid & Typhus

having been produced by Lightn violent sections of the mind, by extreme pain, & by every thing else wh induces sudden disorganization of the solids & fluids 3° Large doses of Opium produce the same symptoms wh are produced by the Miasmata as Slow Pulse Coma, vomiting, Cold sweats suppression of Urine &c

10 Chronic

heat, thirst & pains in the bones, joints, heart & side. These symptoms sometimes occur in the Plague, Jail & Yellow Fever & the Small Pox, but they are the same common characteristicks of Pleurisy, Gout & Rheumatism & now & then occur in the Influenza, Measles & Puerperal fever.

5 VIth The Synocula D^o. Here the pulse is small, but tense & quick & it occurs in the chronic Rheumatism & Pulmonary Consumption.

VIIth. The Synochus mitis D^o

6 VIIIth The Synochoid D^o. This inclines more to the Synocha than the Typhus.

8 IXth The Typhoid D^o. A slow chronic state of fever & is composed of the Synocha & Typhus.

9 X^th The Typhus D^o or low chronic state of fever. This is known by a weak & frequent pulse, disposition to sleep, torpor in the Alimentary Canal tremors of the hands, dry tongue & in some instances by a diarrhoa. It occurs in the Jail, Ship & Hospital fevers. *

10 XIth. The Hectic. This differs from all the

X Of the Cure of Fever — & in the first place I shall speak of the cure of the forming state of fever — Here I must say Proculesto Nosologia: Stand off ye friends & advocates of Nosology you have no remedies for either the forming or Convalescent state of Fever — Your system teaches you that the forming state of fever is a sacred thing & must not be meddled with — My system teaches me to rent it in its forming stage & invites me not to meet my patients in their sick rooms & beds but in the fields & streets & by their fire sides & there to prevent disease in its forming state & as it appears in 1 E E.

other states of fever by the want of regularity in the paroxysms & appears to be an exclusive disease of the bloodvessels. It occurs in Pulmonary Consumption, some cases of Lues Venerea, of Scrofula & of the Gout after most other states of fever. The force of the pulse is various, being sometimes, Synochoid, Typhoid & Typhus.

XIIth The Intermitting or Remitting Do These are common to all the states of fever that have been mentioned, but occur most distinctly & universally in those which partake of a bilious diathesis. —

XIIIth The Febricula Do This is that state of fever in which the morbid action of the bloodvessels is so feeble as scarcely to be perceptible. It is known to the South by the name of inward fevers. These thirteen states of fever seldom appear in the simple form in which they have been mentioned, but often blend their symptoms & sometimes all appear at different times in the course of a fever. These changes are to be sought for in the changes of the weather &c

X

The Premonitory Symptoms of the forming state of fever are 1st Elevated but natural excitement which is known

✱ Dryness Crispness of hair – a frequent full but not morbid pulse – unusual correct & vivid dreams no relish for Tobacco & Coffee, wine burns the Mouth

✱ A weak quick pulse

⊙ Going to bed Sh° – always be advised as it gives the system an opportunity of Equalizing excitement

by extreme hilarity & vivacity, increase of appetite wakefulness &c.* The remedies are abstinence rest gentle evacuents sometimes a small bleeding &c. It appears more frequently in children. than adults

2° Debility - this is known by a loss of appetite giddiness, langour, disposition to sweat, costiveness, increase or suppressn urine sleepiness with distressing dreams, &c. The remedies are rest, gentle stimulants as pediluvium warm bath, cheerful society, laudanum 20 or 30 drops with a little hartshorne, sage tea, diluting drinks; pouring cold water on the body has been recommended by Dr Currie, moderate exercise of the understanding &c in study

3°. Depression. this is known by a weakness of the limbs, inability to stand or walk, lassitude, dry & cold skin, distressing dreams chilliness, shrinking of the hands & feet, yawning* &c. the act of undressing has excited it — Even travelling in some mild fevers has rendered them mortal. The remedies here are rest, fasting gentle stimulants, as diluting drinks so as to distend the stomach, a warm bed, a few drops of Laudanum or Spt Cornu Cervi, pediluvium &c gentle evacuents

* While elevated excitement debility & De=
pression encroach upon disease, the system
contains one of them when the fever is
formed

* Unusually correct & vivid dreams, a frequent
full but not morbid pulse

these are most proper in the forming state, as purges emetics, bleeding, this last should be moderate & confined to a few ounces, 5 or 6 which will often destroy it in its forming state, while larger quantities by accumulat.g excitability will induce it, gentle sweats, or dilating drinks, discharge of heat thro' the body by cool & cold water. Dr John Brown speaks of his thunderbolt pill as puking and purging at the same time, which I believe to be composed of Calomel & Tart: Antim: only. Besides these there are many other occasional symptoms of the approach of fever, as a hot, dry, parched, but sometimes a moist skin, breaking out of old ulcers dimness of sight smell like hepar sulphuris, a dislike for our accustomed stimuli, as Tea Coffee, Tobacco &c a crispness & dryness of the hair &c &c * The system is daily exposed to the predisposing cause of Fever. The forming state of fever consists of the predisposing cause, debility & a small portion of morbid action, & we can frequently by attending to this state prevent the formation of any Fever, but when formed can seldom cure it. The advantages therefore of attacking fever in its

✝ Pringle says the only fevers ever cured are by this Intestinal Hemorrhage

✠ Powerful frictions, violent labour. The Indians suspend themselves from a branch of a tree, destroying the excitabelity & easing pain

I have never seen a fever cured by the Pediluvium

⊙ We often prolong life by prolonging a fever

forming state are many. By so doing we prevent sometimes its formation & duration, but after it is formed the skill consists in preventing death. Dr Cleghorn says, when a fever is formed it cannot be cured but will run its course; here I agree with him and deny that fevers cure themselves as is thought in Great Britain. But to this there are some exceptions — 1st Hemorrhages have strangled a fever, this has occurred in the west indies. — & Yellow Fever of this City 2d An attack of Cholera Morbus has produced the same thing *. 3d Sweating has also, but rarely after the 3d or 4th day this Pringle testifies 4th Fear & Terror have extinguished a fever when formed. 5 Opium in a large dose taken by mistake has had the same effect. 6th Large doses of Bark has produced the same effect 7th a Quart of wine or a pint of Spirit has destroyed it, tho' I have known death from this 8th Cunie has cured them on the 2d 3d & 4th days by the effusion of cold water, never after the 5th. * On all these I shall remark that they are all dangerous, rendering convalescence slow, producing obstructions & often inducing death. Finally I shall observe

* Sedatives & Stimulants – They are indicated in all grades of Morb: Ef: where they are above the Natural force of the Pulse –

The later the season a fever appears the greater the number of Paroxysms before it runs its course, & the longer it is protracted

that many Fevers cure themselves. ‡ Nosology considers the forming state of Fever a sacred thing a (noli me tangere) hence another source of mischief from this many headed monster.

Of the Remedies for Fever including the thirteen primary forms, when formed, they consist of *

1st Such things as lessen by their abstraction of stimulus the morbid & excessive action of the bloodvessels, or excite them when reduced below the point of reaction.

2d Such as by acting on the stomach, bowels, brain, nerves, muscles & skin equalize the excitement of the whole system & thereby indirectly destroy a weak action in the bloodvessels by imparting to them a more vigourous & healthy action

1st. The Remedies which belong to the first general head are evacuents - these are

I st Bloodletting. For a full account of the advantages of this valuable remedy I refer you to my Inquiries (defence of B S). I shall only mention here those states & circumstances which forbid its use. These are - 1st Venesection should be used very sparingly in cases

where from the excessive force of stimuli the system is prostrated below the point of reaction, of course profuse V.S. would abstract the remaining small portion of stimuli & hasten death - 2d After the 3d day of Malignant fevers if not used before it is improper, as the system is below the point of reaction. The remedies here are purges Mercury &c - 3d In weak morbid action in the bloodvessels or what Dr Darwin calls a tendency to irritability in the bloodvessels, as in weak bilious fever or typhoid Pleurisy. The remedies here are purges & then cordials - 4th In diseases of habitual drunkards V.S. should be used very sparingly, because in this case the bloodvessels are so much overstretched that they cannot contract in proportion to the quantity of blood drawn. 5th Copious V.S. is forbidden in very fat people 6th In Pestilential fevers. here the system is so far prostrated below the point of reaction that V.S. is even improper in the first stage. In the year 1798 in this City it was the case. The system was first raised by gentle purges after which I employed V.S. - 7th In diseases of external determination as in Phlegmon, Angina Tonsillaris &c

It has been forbidden after the suppurative process has begun in inflammatory affections but to this rule there are frequent exceptions It is seldom necessary after copious expectorations has taken place in Pleurisy, but if plentifully used before expectoration has begun, it will cure the Pleurisy & prevent the expectoration Tension of the ~~Pulse attending Hemorrhages will not always yield to bleeding~~

without evident symptoms of suffocation ✱ In Pleurisy after copious expectoration 9th When there is an alarming & dangerous symptom from the very great dread of the lancet. ✱ But in all these cases the Pulse is the index. There are however some cases of Hemoptysis in which I would not bleed altho' the pulse be tense before it be reduced by purging; & lastly there are some cases of Hemorrhagy with a tense pulse (& hepatic fever) which cannot be reduced by V.S. But there are some stages in other diseases in which the pulse is dumb - 1st In certain morbid affections of the brain 2d of the lungs - 3 In malignant fever - 4th In chronic inflammation of the Liver &c. But shall our estimation of the pulse be lessened because it does not always show the disease? No! Gentlemen the Mariner never keeps his eye from the compass tho it may vary continually. Great skill is necessary when the pulse is absent or deceives us. The pain, heat, respiration &c are then to be attended to & may direct us. V.S. is frequently necessary in Colic, Strangulated hernia & Gall Stone when the pulse is natural, & I have even bled with advantage

* In persons subject to spitting of blood - in Cephalic congestions -

They are indicated in fevers of a high grade of Morb. ot -

once or twice a day & continued for several days

Dr Cobham of N Carolina 70 or 30 gr. ad used to cure bilious fevers by Emetics and in cases of the most malignant grade he continued to puke the patients for 2 or 3 days - his practice was very successful but copious V.S. wd have prevented any occasion for this barbarous remedy -

⊗ Vomits in the forming state of fever often prevent it - by exciting an action superior in force to that of the disease - I. Emet is preferable to any other emetic in fevers the Dysenteric state of it excepted

when it was feeble. Bleeding is either general or local. The first by the lancet 2d By Cupping leeches &c which last are of service in local inflammation as Ophthalmia &c.

II. Vomits. These are forbidden 1st In fevers of great morbid action as hamatamesis, except after bf. ruptures &c. They are useful in diseases of moderate morbid action as in pulmonary Consumption J. Augusta &c. They are more safe in children than in old people. & more safe in old people than in middle aged persons. In Pregnancy, in persons subject to cephalic complaints or ruptures they should be prescribed with great caution. To be effectual they should be given frequently. I have given emetics every 2 or 3 days in the scarlatina Anginosa with success agreable to Withering. Nature sometimes cures disease by Cholera morbus & hemorrhages as in the Y. F. of 93. The best emetic is Tart: Antim: Where emetics are proper the less liquids taken with them the better.

3d Purges. These are better & more safe than vomits, they invite disease from other parts to the intestines by creating an artificial weak ~~morbid~~ action in

× They ought be given in the Apyrexia

* They are extremely useful in Colic

× especially indicated in the diseases of Children

⊗ Sweats may be produced 1 by Sudorific Med

▽ 2dly Diluents drinks these if used must be taken in large quantities they act simply by distention & are seldom effectual

useful in pains in the bowels, head &c

them. They are Salts, Calomel, Jalap, Scammony Gamboge &c. Jalap & Calomel are the most proper in bilious cases & should be given once a day. They are useful to take off pressure from the bladder. Whenever the Feces shew a disposition to pass off by the bowels in a fever, the bowels should be opened 3 or 4 times a day, or a diarrhœa should be kept up 3 or 4 days by means of Calomel Jalap or Rhubarb & if necessary Glysters should even a spirt. They relieve the Kidneys Aorta &c from pressure of stagnant Feces. They disturb the system less than purges. It is to be lamented that the prejudices of persons prevent our obtaining all their beneficial effects. A Glyster syringe should be a part of the furniture of every family. By stimulating the rectum too we drive morbid excitement from other parts of the body. Suppositories should be used which are made of wax Soap Aloes &c.

4th Diaphoretics. These are by stimulating & are improper in fevers of violent morbid action. They are stimulating medicines. By nauseating med: &c, these last are improper. They sh^d be rejected with the theory wch suggested them we should never make a sick stomach. But on the contrary relieve one. By means of the Warm bath acts as a powerful sudorific, when it succeeds it does good, but on the

~~* carried over the whole body~~

When in Fevers Nature shews a disposition to relieve herself by sweating she sh^d be aided by sudorifics. But even here it is often necessary to precede the ~~sudo~~ sweating medicines by bleed^g & other depleting remedies —

⊙ They are proper in the forming state of fever only

A vapour bath sh^d never be used when the patient is much debilitated

A This induces sweating indirectly & when it does not produce this effect it tends to lessen morb: act^n

B It may be used when morb: action has been reduced by previous depletion — Another method of producing sweats in fever is now in use it was used by Dr Physick & myself in the City Hospital with success It consists in placing heated bricks wet with hot water & vinegar in the Patients bed — also by passing a warming pan all over the patient between the blankets This method may be continued for 4 to 5 hours & repeated 2 or 3 times a day

C I have already mentioned the uncertainty & difficulty of this mode of depletion — May then renounce the more certain more effectual & more delicate evacuation of Vs. —

D This deplete in a more feeble degree — It operates principally by revulsion. It may be produced by various means — 1 By giving M^s internally in doses from 2 to 10 gr^s 2 3 times a day — 2^d By friction with M Ointm^t 3 By rubbing the gums with Mercury 4 By fumigation 5 Merc^l Socks — This is Merc ointm^t spread on linen & laid in the stockings — When 271

contrary when it fails it does harm. I find warm bed clothes to answer much better. 5th Cold bath A this reduces morbid action without inducing sweat when the heat of the body is above 108. Hot sweet oil rubbed over the body produces sweating. 6th The gentle ~~great~~ weight of bed clothes, this is perhaps the best method, Sydenham is the author of it. B ~~The warming pan~~. * Bottles or Bladders filled with warm water, hot drinks, covering the whole body over & breathing the nitrogen for some time. # Sweating should be proportioned to the strength of the patient, sometimes it should be continued as long as 24 hours & at others less. The patient should often change the linen when sweating & always when it is hot. The internal sweating medicines are 1st Nauseating medicines, these have seldom done much good but much harm, 2d diluting drinks these act by lessening acrimony of the bowels &c. C These are many medicines which are recommended to produce sweating - they should be combined with Opium.

6 5th Salivation. These are ~~These are Mercury~~ &c. Mercury seldom salivates one in 4 in any fever, but in those which run their course in 4 or 5 days it seldom reaches

* The Morbid action transcends the stimulus of Mercury so much that it can't act

When the system is so prostrated that it cannot react, Mercury is our proper remedy & happily for us, it then soonest has effect —

⊙ Blisters are useful when the Pulse is descending to the Synochoid & Typhoid states It is a good sign when Blisters lessen the frequency of the pulse & increase the strength of the body. —

E. A salivation however produced is a very unpleasant mode of depletion & is more uncertain than any other Its ill effects I formerly mentioned — It frequently does not produce a flow of Saliva but swells the gums loosens the teeth & renders them carious — Ulcerates the cheeks Tonsils &c — ~~Tooth a serious &~~

F It is not only the most powerful but it is at the same time the safest & most certain evacuation.

the mouth.* There is a certain point at which salvation should be commenced.# Mercury may be used either internally, or externally by friction with the ointment rubing calomel on the gums & fumigating. When salivation should be brought on speedily all these methods are to be used. But there have many disadvantages as ulcerating the Cheeks, gums, and tongue. Mercury is only a medicine of necessity.

6th Blisters. These are the weakest of all depletions & should never be used in fevers of violent inflammatory action without local affection & then only to the part affected. Jackson says they are improper in a hot & dry skin. Recollect how they were forbid in our Therapeuticks. From a review of all the substitutes for V. S. we find them all very inferior to it. It does no violence to the system, none to the system, or senses. It exhibit not a single case of death on record few ever die from an improper use of it. while thousands have died from an ill timed use of vomits, purges & other depleting medicines.

Remedies which abstract the usual stimulus of heat. These are cold in the form of cold air, water & ice.

1st Cold Air. This acts negatively in abstracting heat. It should be proportioned to the heat of the body;

* ~~Abluction~~ This is proper in the forming state of fever It is the safest way. — It arises from 2 Theories — One the existence of morbific matter, the other of spasm of the vessels —

* 1st By dashing it over the body — * see above

× reduces the pulse, & is preferable to ablution

when it is at 108 it should be used - also it should be proportioned to the states of the system, for if 62 were agreeable in health 50 or 48 in sickness is best - It was for this Sydenham recommended to his patients to get out of bed & walk in the cool air, & if not able to get up to be dragged out of bed - Many fevers forbid rising out of bed, here the bed clothes should be removed, & so that it may have access to every part of the body. —

2d Cold Water. This is useful when there is great morbid action with a dry hot skin. Bruce says the natives of Mapura cure their fevers by laying in their beds & suffering themselves to be drenched with cold water. — The modes of using cold water are many. * 1st By applying it to the whole body - this method should not be used unless much exercise be taken with it so as to expend excitability as well as reduce excitement - 2d Sponging the body with a Sponge dipt in cold water. Currie recommended this way when the fever was formed - 3d Placing the hands & feet only in cold water. † 4th I have seen the happiest effects from clysters of cold water. They operate in this way not only on the bowels,

Dr Currie has most erroneously said that whenever Cold water may be applied to the body it may be taken into the stomach

× 1 By conveying off the stimulus of heat 2 After reducing the heat it causes reaction

○ 1 before the skin is fit for reaction

∞ Cold has been objected to because

(* See next page

bowels but on the whole body. Cold water is improper. Act in 2 ways +
~~The external applications of water by ablution are improper~~
1st In the early stages of Fevers before the reduction of morbid excitement 2d In sweating - 3d In great morbid action or congestion of the lungs, liver, head, bowels &c
4th Where the heat of the body is very intense & when heat & cold act at the same time water externally is improper 5th It is improper in the chilly fit of fever, 6th when the body is covered with sweat. 7th It is improper in the first state of local inflammation. (* See below

3d Ice. This is particularly useful in affections of the head. It should be pounded & applied inclosed in a bladder to the head or part required, or in a tin cap. On ablution I shall make a few remarks. (* Dr. Cummins of Antigua recommends the use of Spirits instead of water, because evaporation is much quicker induced by it & it more cold thereby generated #
1st Ablutions exclude all other remedies.
2d They require a regard to many circumstances which require the attention of the Physician himself. 3d I object to them in fevers for I believe other applications would produce the same effects, as washing the hands, face, feet, head, &c* It should ~~be~~ never be used as a

* The skin is an unit. ~~water~~ applied to one part will affect the whole — In the exhibition of cold little attn. need be paid to the skin — the pulse & other symptoms alone shd be attended to ——

× is proper in fevers of increased excitemt —

stimulant in low Fevers, as Typhus for it frequently produces death. 8 ~~Also~~ Abstinence by depriving the system of its usual quantity of Stimuli, & should be proportioned to the excitement of the System. Milk butter ardent spirits &c should be forbidden. Diluting drinks &c should be used, roasted apples bread water &c (refer to Johnsons Nurses guide edited by Cox) — ~~Also those remedies which abstract the~~ stimulus of —

4 Sound & Light will be abstracted by silence & darkness. Sound & light should be guarded against with the utmost care in great morbid actions, conversation has often done harm, delirium is often the consequence of it.

5th Of the Invigorating Passions by moderate fear this has often had great influence in fever & in lessening the pulse.

6th Of Motion, ~~by Rest~~. Journeys, walking &c have frequently occasioned fever. When there is only a slight indisposition walking or any gentle exercise will cure it, but when indisposed during the prevalence of an Epidemic the patient should surrender himself as it were to rest & quietness. —

12 y^ll Of acrimony ought be obviated by diluting drinks & cleanliness
Diluting drinks lessen the heat of fever & the acrimony of the fluids & of bile. Too much cannot be said of them, they are toast & water, barley water, apple water, certain teas of which balm is the best, lemonade, rice water, tamarind water, the different jellies dissolved in water, dry cherry water &c there should be often changed in order that the patient may not in consequence of using any of them too long acquire a dislike to it. None of these drinks should be given cold as they frequently produce reaction in the system & its consequences. Thirst should not regulate drink any more than appetite should food in fevers, therefore when there is great thirst it should not be indulged; the drinks should be given in small quantities & often & when there is no thirst, we should give them even when not called for. Cleanliness is also very proper, the teeth, mouth, & skin &c should be kept clean.

Remedies which direct local morbid excitement, congestion inflammation & serous effusions from parts that are essential to life in the first degree to

*: Nitre is seldom borne in Gouty Habits & Bilious diseases – attend to this
in frequency & force & its action on the Blood vessels is powerfully sedative – It may be given in a dose of 10 to 12 gr every 2d or 3d hour

+ Useful in Synocha Synochus fortis & nocturna & Synochus Mitis —

such as are less essential to it. These are all such as are mentioned under the head of evacuents, also-

1st Nitre & other Neutral salts. * Nitre acts powerfully on the Stomach which is evident from dyspepsia succeeding the too free use of it. It also lowers the pulse. # Nitre ℥ss & vinegar 1℔ is an useful application in inflammation &c. It is not necessary that it should produce nausea &c dose from 10 to 20 grs. —

2d The preparations of Antimony of which Tart: Antimon: is the best; it excites a revulsive action in the Stomach, creates an artificial weak part. It should be combined nitre or Antimony. Seneka acts as a sudorific without stimulating the whole system - hence its great use in Peripneumony.

3d Sugar of Lead. This has been given in the hemorrhagic state of fever with great success. Sir George Barker gave it with great success in internal hemorrhages.

4th Fox Glove. This lessens the irritability of the whole system. It should never be given in a low pulse. In the Dropsic & Pulmonary states of Fever

malignant —

occasionally approaches bitter

it has been principally recommended. (Dr R. has had no experience of its use therefore can say nothing of it) It has been lately used in the Synocha & Synochula states of fever: but I think it should never be used unless with the greatest circumspection. Sweet oil externally applied in fevers of great morbid action has been of great service this I infer from its use in local inflammn Dr Jackson tells us that the sweet oil applied in the manner just mentioned lowered the pulse. Nitre dissolved in ~~vinegar has been used.~~ — Dr Stuart of this City has lately mentioned the good effects of ligatures in morbid action by stopping the return of venous blood. Dr Stahl mentions the power of wakefulness. "No one, says he knows the effects of wakefulness in high fevers" I have frequently witnessed the good effects of this & have sometimes seen a patient wake delerious. Here before I conclude the account of remedies for diseases of great morbid action in which I include, Malignant Synochus fortis, Synocha Synochula, ~~Synochus Mitis~~ & occasionally Synochus mitis & Synochoid; I beg leave to add the following Indian remedies. 1" Powerful friction — Captn Cook was cured in this way by the Natives of one of the

*The Pulse is low, frequent & less tense than full
Called by Dr Butler slow nervous or chronic fever
It is often a form of mild bilious fever -
Hospital & Jail fever often commence Typhoid

Typhoid

friendly ifpaluds of the Rheumatism. 2d Violent exertion or labour, the Indians cure Mania by this means 3d Strong stimulating powers. They often cure Pleurisy by stretching the arms or by swinging by the arm of the affected side 4th Hot & Cold Bath, these are proper in external diseases; in tonic mania, Indian Constitutions. The Russians use a bath similar to that of the Indians to preserve health. They are only indicated says Dr. R: in diseases which have external determination. But none of these are equal to V.S. & its auxillaries, as Purges, Vomits &c. Before we come to treat of Stimulating medicines we will say a few things respecting these states of fever where both evacuants & Stimulants may be necessary; as Typhoid Bilious & Pleuritic states of fever. The Typhoid and Typhus creep on gradually, sometimes with feeble chills, the skin & the edges of the tongue dry, with head ache; continue 30 or 40 days without intermission. Vomits frequently choak it in its forming state, but large V.S. bark & wine do harm. It is sometimes best to wait awhile until it wears itself completely

Brandy, wine & opium are always prejudicial —

Peace & blessings to her & mine until the tyrant shower heavily settled sorrows —

Hope is the best consolation —

down into the Typhus only obviating urgent symptoms. The remedies are 1st Moderate V.S. once or twice when the pulse is tense & full, 2d Vomits these are safer than V.S. they as it were untie the typhoid knot. 3d Gentle purges nitre, blisters, & perhaps cold applied to the Skin &c & should be continued until the typhoid action be nearly worn down. In short the remedies for the Typhoid state of Fever may be summed up under three heads namely, abstuli, sustine, et siste — The indications are 1st To equalize excitement 2. To excite another action, give stimulants but gentle, & if they do not render the pulse slower & fuller discontinue them. Jackson speaks highly of the effects of gestation, but says that it should not be used until the fever has run its course, & I think very properly.

Of the Primary Forms of Fever which require Stimulants. There are such as Forbid depletion, as 1st Malignant, where there is no action 2d Gangrenous which arises from not depleting in the first stage of disease or suffering it to terminate in itself. It occurs in the Small pox, pleurisy Plague, Y: Fever & Gangrenous sore throat. This is the Typhus Gravior of Cullen; known by nearly a

weak & jerking

⁂ The Pulse ~~has an~~ irregular stroke —

When stimulants make the pulse slower & more full they do good when they render it more frequent, they generally do harm

× deafness glandular swellings, abscess Gangrene in different parts of the body sometimes without inflammatory symptoms.

⊙ Patient insensible of his danger & feels very well indeed. Sometimes total prostration of strength Bloodvessels in a stricture state

Pulse scarcely perceptible paralytic state of the bloodvessels, hemorrhages, buboes, carbuncles, great muscular strength & pain, or the absence of both, absence of mind &c. 3d The low chronic state of fever, of Dr Butter or Typhus &c. This is the Typhus mitior of Cullen, known by delirium, coma, languid eyes, fallen jaw, dry furred & black tongue & teeth, ~~also dry tongue~~, coldness of the extremities, costiveness or diarrhoea, often involuntarily discharged, pale urine, dry skin, & at the close by Typhomania & little cough. This is the effect of debility, it follows all inflammatory fever, or may be primary & requires Stimulants. #

II^d The remedies which belong to the second general head are Stimulants. These divide themselves naturally into such as are internal & external. + See Rules below — The internal may be divided into Medicines & Aliments. The first are 1st All Fermented & Distilled liquors. Before I mention them particularly it will be necessary to give a few rules for their use. 1st We should begin with small doses of the weakest stimuli & gradually increase them — 2d Give 2 or 3 at the same time 3d give them in rotation — 4 & Constantly. The fermented and distilled liquors are such as Wine, Malt liquors, Ardent Sp.ts

Wine is a pleasant & cordial medicine, is nutritious as well as stimulant since it contains spirit, mucus, saccharine matter, acid & water. The quantity of it should be regulated by the state of the system & quality of the wine. White wines are most proper when acidity prevails in the Stomach, but in cases of extreme debility the pure wines are the best as Madeira &c. From one to 3 Quarts may be taken daily in most cases. Persons in health are much more easily intoxicated by wine than when they are much debilitated. Of Malt liquors Porter is to be preferred, from one to 3 bottles of it may be given in a day. Ardent Spirits there should be only used where the patient has been very much accustomed to them or when a sudden effect is desired from the Stimulus. These last are Stimulating without affording any nourishment. from 1 to 6 oz a day

2° Volatile Alkali. This has great effect in this state of fever & may be given from 5 to 10 grs. in a bolus or pills 2 or 3 times a day.

3° Empyreumatic & Aromatic Oils, also certain Fœtid Animal & Vegetable substances. Of the first

I will only recommend the oil of amber which is an excellent stimulus in the hiccough which occurs in the low stage of fever from 5 to 20 drops every two hours. Of the second I shall only recommend the oil of mint. I have never experienced the great effects that have been ascribed to Musk & Castor, they succeed the album Græcum &c which were used in the ancient & superstitious days of medicine. They would universally go out of practice if Physicians knew as much as they ought of Opium wine &c

4th Opium. This is a host of stimuli itself. All others may be compared to the feeble rays of a candle while opium may be, to the powerful ones of the sun. While other stimuli appear to act partially upon the different systems Opium appears to act upon them all. It acts on the stomach in large doses producing inflammation of that viscus &c. on the brain producing hilarity &c. On the bloodvessels rendering the pulse more tense & feeble but less frequent. On the alimentary canal producing costiveness. On the kidneys & bladder promoting the flow of urine. On

the muscles by relaxing spasms on the skin producing sweating, itching & eruptions. That opium differs from other stimulants in some respects in producing these effects is certain, but what two stimuli perfectly agree? they all vary in their action upon the system; thus bitters act principally & chiefly on the alimentary canal, Ether & volatile alkali upon the nervous system Spirits & fermented liquors upon the bloodvessels & nerves; Oil of amber on the muscular system & Opium on all. It differs from most or all of the Narcotics that act on the brain & nerves, It is to this Ascribe its familiar action in inducing sleep. In a neighbouring state in the year 1769 a Gentleman took a tablespoonful of Laudanum mistaking it for a neutral mixture, he was thrown into a sleep in which state he continued 48 hours & awoke perfectly well. Since the American Revolution it has been used a little in G. Britain in Typhus fever. In its exhibition the following directions are proper. 1 Great attention should be paid to the pulse 2d Begin with moderate doses, 10 or 12 drops will often do

& in the interval give some Mild Stimulant

more good than twice the quantity. It acts in 2 ways in bringing on sleep. 1st By raising the system to the sleeping point when below it & 2d by carrying the system to the indirect sleeping point; this last method is dangerous in fevers. 3d Give it in an increased dose according to the increase of the debility. Dr Boquet of Paris took 100 grs of Opium & a pint of Ether in one day to cure the colic. In cases of indirect debility the doses should be small. Dr Stedman relates the case of a man who died in consequence of taking 20 drops of Laudan: to check a vomiting. He had taken an emetic & was debilitated, his excitability was accumulated & the stimulus of the Laudanum destroyed him.

4th It should be given in small doses during the day but larger during the night. because there is a deficiency of stimulus in the night while in the day there is additional stimulus, as wakefulness. 5th In all cases of sudden debility begin with small doses. 6th It should be laid aside after loosing its effects for a day or two. 7th When it ceases to operate on the stomach give it by injection with double or treble the

dose. 8th In proportion as the patient recovers & the excitability increases the dose should be lessened.

5th Ether. This is a quick & powerful stimulant & is sometimes used with advantage after opium has failed, in the dose of 30 or 60 drops every hour.

6th Bark. This has many advantages in Fevers & acts as a stimulant. We should begin with the infusion provided it has not been used before. then with Huxham's tincture which has many advantages by having bark & Laudanum combined; & lastly if it shd. offend the Stomach Gentian or Columbo should be combined with it which are however much inferior to the bark. A Spanish Physician used 4℥ of Bark a day in a case of Malignant fever. but Dr Apilini tells us he found bark & coffee each 10℥ infused in 1℔ of water to be of equal efficacy. I have substituted the following formula of bark & coffee each a spoonful, water ℔ pint from one to two table-spoonfuls every 2 hours.

7th Mercury. I have used this with advantage in these states of fever, & was led to the use of it from seeing

its good effects in the Typhus state of Cynanche Maligna 2d From the cure of Typhus in a Gentleman by an accidental salivation & since that time from the benefit derived from it in the Malignant, Gangrenous & Typhus Fevers where V.S. is forbidden.

8th Pure Atmospherical Air. not simply cold air. Too much cannot be said in favour of this in fevers. Its effects are wonderful in the cure of Malignant Gangrenous & Typhus state of fever. Malignant fevers are frequently changed in the West Indies to Intermittents in consequence of a removal into pure air. When a removal is desired the patient should be conveyed as quietly as possible, but when this cannot be done the following substitutes should be adopted. 1st Remove the cause or causes corrupting the air, and make a fire in the middle of the room if there be no fire place. 2d The Earth absorbs contagion & poison hence we see dogs & cats scratch holes in the ground & breathe in them in order to get the pure air; also certain Nations as those of Genessee when bit by a poisonous snake dig holes in the ground & put the injured part in the ground with success. Hence also the floors of Hospitals

should be of dirt, it is for this reason that the poor people are generally healthy. 3d When fire cannot be had Dr Campbell recommends 2 tubes to be passed into the room, the one to carry off the vitiated air while the other conveys the pure into the room. 4th Smoke has a wonderful effect in these fevers. Dr Bruce tells us that the poor in Bassarato who lived in smoky houses escaped the Plague. 5th the deflagration of nitre or the decomposition of the muriatic acid by the sulphuric. 6th Having the bed in the middle of the room & also bereft of its curtains. 7th that no more persons be admitted into the room than are really necessary. 8th No person should sit on the bed side. 9th the excretions should be recd into cold water & conveyed from the room as soon as possible. 10th The linen & sheets should be changed daily. 11th The floor should be sprinkled with pure water instead of vinegar, because in 2 or 3 days the vegetable matters contained in the vinegar will putrify & assist in vitiating the air.

9th Oxygen Gas. This has been highly recommended but I cannot say any thing of it from experience. too extensive

10th The invigoration of the Passions & Understanding

or in broths – The appetite in Typhus fever generally revives on the fifteenth day

Anger once cured a Man in Jamaica of Typhus Fever. Fear has often done the same. Courage pronouncing great names or popular dr. joy from seeing absent Friends, good news &c have often done much service in these states of Fever. A Lady in this City was once snatched from the grave by the sight of her lover. Hope should be inspired into our patients as it is that cordial which we have most under our command. Gloomy visitors should positively be forbidden, but a pious Clergyman should be admitted because their conversation will tend to reconcile the patient to his destiny.

11th. Stimulating injections into the bowels, these have often done service & are numerous: The most valuable remedies for this state of Fever are Bark, Wine Opium - Warm bath. II° The Aliments include such animal & vegetable matters as are commonly used in diet, together with saloop, tapioca arrow root & the like. Animal food may frequently be given in a solid form to advantage. I once cured a gangrenous small pox by indulging the patient in Animal food. It acts in 2 ways. 1st By the pleasure it gives the patient to think that it is in-

& to strengthen the stomach by eating little at a time

his power to eat of it, & by its stimulus in the Stomach 2° By affording a matter for red blood & that by repetition producing one of the most powerful stimuli of life. I am induced to believe that the low fevers are often cured by animal food, as ham, beef steak &c. In the use of it two directions may be necessary 1st Do not suffer the patients appetite to regulate you - 2° Great care should be taken to tempt the patient to eat often by changing the food &c for as the appetite often exists without digestion so may digestion go on when there is no appetite. —

The External Stimulants are

1st Several of the Internal so prepared as to be applied to different parts of the body, as, the nose, temples, limbs, & the external region of the Stomach & bowels. They are flannel wrung out of hot water, the vapour of vinegar to the nose & mouth. washing the hands & face in vinegar, cordials; wine bark &c given in injections. —

2° Cold & Warm Baths by lotion or affusion over the whole body. Cold Bath has been recommended but it is not safe when the system is below the point of reaction. in the Gangrenous state of fever it has hastened

× improper, as they generally occasion gangrene.
Where there is local pain they may be serviceable

death, because the exertion of dressing & undressing was too great a stimulus for the system to support, but when it is applied by means of a sponge or dashed on it may be of service. The warm bath is equally unsafe & should only be used by means of flannels, bottles or bladders. —

3.rd Blisters. These have been spoken of before in our Therapeuticks they may alternate the symptoms but seldom remove the disease. —

4.th Cataplasms of onions, garlic mustard &c to the feet. These are often useful; in the use of them we should begin with the weakest & gradually rise to the strongest; these are better than blisters.

5.th Certain applications calculated to irritate & inflame the skin, as Ether & the tincture of Cantharides combined, which is an excellent external application, also the application of the volatile liniment with the tincture of Cantharides. —

6.th Caustics. These are often necessary to revive from a comatose state. They should be applied to the back of the neck. I have often derived much benefit from them when nothing else was of service; they are

indicated when V.S is forbidden. —

7.th Boiling Water & Scarifications act similar to caustics. An Italian Physician has lately recommended friction with a flesh brush; all these & sometimes coals of fire have been applied successfully. I know a Lady in the last stage of Malignant fever to be entirely cured by being burnt on her breast by a Candle which the servant let fall. Dr Physick relates a case in which he thought a sudden cry of one of the family, who said the patient was dead, cured. — A few questions may here be asked to which I will answer. Are sweating medicines proper in Typhus? No. A softness of the skin is favourable but a profuse sweat is injurious - it exhausts the patient to no purpose. Spontaneous ~~deaths~~ sweats often precede death. Should patients be allowed to sit up? No, the patient is too weak, any thing that is given should be poured down the throat while lying. Cloaths or other things should be used to receive their faces or what passes from them. I have known some instances in which the patient has expired on the close stool. Are cold drinks proper? No the patient frequently asks for them just

before death owing to the morbid action retreating to the Stomach or Fauces as the last & strong hold. Is purging proper? No. unless there be a great accumulation of bile. Clysters should be used to produce a stool every day, but there are cases in this fever in which the retention of the Foces 2 or 3 days is really proper. The urine should be drawn off by Catheters & particular inquiry should be made respecting its time of discharge, as the patient is sometimes insensible to its great stimulus. Warm drinks are generally proper. Is sleep proper? This depends upon the state of the pulse, if it be active sleep may be admitted, but if faint the patient should be awakened every half hour to take aliments or medicine, or where the pulse flags. I would have you to recollect that life is more languid in the sleeping than in the waking state, hence death often occurs in sleep from the total abstraction of stimuli, & patients often die in the night for want of the cautions just mentioned. I have called these the Malignant Gangrenous & Typhus forms of fever, but they frequently change into others. I have seen the inflammatory change into the Typhus form, & the

Typhus into the Inflammatory after some weeks. In such cases frequent visits are necessary. The low nervous changes into the Typhoid, all of which at different periods require different stimuli. The forms of the Malignant & Gangrenous differ, sometimes in beginning with ~~exce~~ tions & sometimes with ending with them, being at sometimes preceded & at others succeeded by the same appearances, sometimes requiring weak & sometimes strong stimuli & vice versa—

In a fever at Illinois all died who took the Cort: Peruv: while those who took a decoction of the willow bark recovered. The human body is not like an old house which can be repaired with the same materials; it requires different stimuli & different degrees of these stimuli. I will here risque a bold assertion, that if a Physician could be possibly with his patient, have absolute command over him, accommodate his different remedies to the state of the system & that it would hardly be possible for the patient to die of low nervous fever. A judicious Clergyman used to say that he first considered his congregation & afterwards accomodated his sermon to them, in like manner ought

a Physician first to study the constitution of the Patient, the state of the system, the climate &c & then consider the medicine proper for him. I have to observe that few of the observations on the diseases of Europe are applicable to those of America. The condition of the system as shown by the pulse - the condition of the system - I repeat it again & again - the condition of the system should govern the prescription. A Fever as the sails of a ship should be turned to suit the wind. I formerly thought that the Typhus was not an original form of Fever, but I have since changed my opinion & believe now that it comes ~~from Pandora's box~~ stamped in the original with this form of Fever. This fever may become Chronic by saving life, but suppose its violence was so great as to terminate in 3 or 4 days, by Dr J. it might be enabled to run the whole course of 30 or 40 days with which it was originally stamped & thereby death prevented. I bled 2 Sailors in the spring of 1803 with the Typhus it nevertheless spun out its time for 30 or 40 days. It is often I believe created by a scanty depletion in malignant & other inflammatory fevers. When I first settled in this City the most

"debility after the termination of Typhus

common type of fever was the Intermittent, which at length changed to a Chronic - the chronic to a bilious, & the bilious to the Yellow or Malignant fever. Many people die of weakness after fever - like General Wolfe in the arms of victory. Care should be taken to obviate debility succeeding disease. This may sometimes be done by a few drops of Laudanum.

Of Convalescence. — This ~~is a dis-ease~~ consisting of debility excess of excitability & a little morbid action, or several febrile symptoms. It is attended 1st with wakefulness. 2d Often a nauseousness & a vomiting of bile in the morning. 3d defect or excess of appetite 4th Anasarcous swellings of the limbs, this occurs more particularly when V. S. has been neglected. Also Ulcers, Abscesses, Coughs &c 5th Obstructions of the liver spleen &c 6th Ulceration of the parotid & inguinal glands 7th An impaired state of memory, defect of speech & even paraphonia 8th a change of the colour of the hair & even a loss of it sometimes. 9th Costiveness & a yellow colour. 10 Feverishness especially in the afternoon, & pulmonary affections -

11th An impaired state of the mental powers & even sometimes of the moral faculties. The remedies for these are 1st Cordial drinks, as. Porter, Malt liquor &c 2d Cordial & Nourishing diet; beginning with choco-late then Chicken, flesh &c. The meals should be fre-quent & a small quantity taken at a time. 3d The us-ual stimuli should be applied gradually; the gratifi-cation of the venereal appetite & the exercise of the men-tal faculties should be avoided, also improper & immo-derate eating & drinking. A Salivation would be of service in fevers if it were only to prevent excess in eat-ing by the soreness it occasions in the mouth. The sud-den appearance of friends should be avoided. 4th A change of place or to another room is proper; for the vials papers pill boxes &c never fail to carry with them a sedative effect. Huxhams tincture may be given it is an excel-lent restorative, a table-spoonful 2 or 3 times a day in wine. A Gentleman who took a Pleurisy by going out a gunning could not get well until the gun was re-moved from the room. 5th A change of dress shaving &c gentle exercise in a carriage but not so much as to

fatigue; The sight of places and objects to which we have been accustomed is as it were a renewal of our contract in life; warm clothes in the day & warm bed clothes at night &c &c. The rules for convalescents are 1st To avoid infectious places. 2 purging. 3d sitting or standing in a current of cold air &c I shall now enumerate the remedies for each of the above symptoms 1st Wakefulness this is cured by laudanum 5 or 10 gtts or what is better a little bread & cheese & porter. 2d Vomiting, this depends upon atony of the stomach & may be cured by taking a little aliment over night. 3d A defect or excess of appetite; the first may be cured by bitters; bark columbo, huxhams tincture, elixir of vitriol, & the latter by abstinence. 4th Anasarcous swellings of the limbs, by rubbing them upwards & in the morning only. In ulcers Pringle recommends stimulating plaisters 5th Obstructions of the Liver &c by V. S. & mercury. Mercurial plaisters may be applied to the affected part 6th Ulceration of the parotid & inguinal glands, by stimulating plaisters &c 7th An impaired state of memory &c these are generally difficult to remove especially when of long standing

& sometimes end in Fatuity; they may however sometimes be removed by gentle exercise & cold bath 4th Costiveness & Yellow Skin, by Calomel & Rhubarb &c &c Regard must be had to the character & conduct of nurses who have it sometimes in their power to give or withhold the medicine or aliment as they please - & that Physician will do best who gives the medicine himself, or if it be not in his power to do so to choose such a nurse as may be depended on.

The following are the Consequences of fever at some times 1st A sudden growth in the whole body especially in young people 2d an increase of Fat 3d they sometimes carry off chronic diseases. Dr Fordyce mentions the Gout being cured by the Plague 4th Remove barrenness - this is effected by the remaining debility, which accumulates excitability & leaves a broader surface for the stimuli to act on; 5th imparts strength vigor to the body &c The Malignant & Gangrenous states of fever are often the effects of contagion of which the following are the causes - 1st Confinement in one room 2d Neglect in changing linen &c 3d In not washing the skin 4 Confined persons together

× When thus protracted the disease has been improperly treated for it is by no means incurable

excrements &c. The means of preventing them & contagion are 1st Washing the linen, bed clothes & burying the excrements. Happily however for the United States human contagion is scarcely known.

Intermittents & remitting states of.

They are those forms of fever which have paroxysms, intermissions & remissions; when they are without a chill they are called dumb. Continued fevers when they pass the 20th day generally become septerinary. Intermittents are frequently protracted to an immoderate period, they have been known to continue 20 or 30 years yet they are not incurable. Intermittents are divided into 1 Quotidians the paroxysms of which occur every day. 2 Tertians having their paroxysms every other day, & ~~lastly~~ 3 Quartans which have their paroxysms every third day or in the space of 72 hours. The Quotidian usually attacks in the morning, the Tertian at noon, & the Quartan in the evening The paroxysms of intermittants are said to anticipate & procrastinate, as when they precede or succeed the usual time, the former shows the increase, the latter

† The treatment divides itself into
three 3 heads —
treatment before parturition, during
the parturition & after it

the decrease of the disease. From the accession to the going off of a fit is called the paroxysm; from the end of one paroxysm to the beginning of the next is called the interval. Intermittents produce dropsy & other diseases chronic & incurable; they are very much influenced by the atmosphere; they have sometimes been brought on by salivation, which sometimes intermits. The Gout sometimes appears in an intermittent form. The Intermittents appear in three forms. 1° In the Malignant 2° In the highly inflammatory & 3° In the mild form, all of which require different treatment. A fever is known to be an intermittent 1° From the hot stage succeeding the chill, & occurring in the season in which intermittents are most common. 2° By the duration of the cold stage. 3° By a discharge of bile during the paroxysm 4° by the time of its attack 5° By occurring in climates that are not very hot or cold, it is little known in the West Indies, or in climates uniformly hot or cold 6° the urine secreted during the fit of the fever is clear while that of the interval is turbid & of a black colour. In intermittents if the system be low give cordials, but if it assume

*These fevers are sometimes protracted a great length of time — Mr Bruce had a Quartan 15 years I have read of its continuing 33 years. When it is thus protracted the disease is not properly treated for it is not by any means incurable. —

an inflammatory type. V.S. is necessary, vomits, purges &c. The state of the pulse, intensity of pain, vomiting &c should be attended to & should determine the quantity of blood to be drawn &c. Dr Holmes says that in the Intermittents of Jamaica he was obliged to V.S. while in the Rl: Fever he never found it necessary. I suppose that in the latter the system was reduced below the point of inflammatory action. He had a case of an intermittent in this Hospital (Robert Rose) which was of the tertian type of 3 Months standing & was by the first V.S. made a continued Fever, but by the 2d the Patient was cured, in 8 days from the time of his admission.* Vernal intermittants were formerly thought healthy but V.S. is necessary in them too. King James said that Intermittents in the spring were Physick for a King, but in his old age he died of one. Being reminded of his saying on his death bed by his Physician, he said for a young King not an old one. When they are mild & the pulse Typhus the fit is often prevented by laudanum & diluting drinks V.S. if the pulse be tense. & neutral salts & bitter tea before the first paroxysm, bark before the

* 11 Radical

second & laudanum before the third if the inflammatory symptoms be low & the pulse be Typhus. As mild as the intermittent generally is in the spring it commonly assumes an inflammatory appearance in the fall at which time V.S. is always proper. I have here found it necessary to bleed three or 4 times before the system was prepared for the bark. In intermittents of the mild kind, just before the paroxysm wine laudanum about 30 drops, vinegar & pepper together about a teaspoonful of the latter to half a pint of the former, dancing, hot & cold bath, spirits, sulphur in Sp.ts Stramonium or tobacco applied to the wrists, a ride on horse back, sweating before the fire, terror, & electricity will sometimes be effectual by acting on the predisposing debility. The remedies to prevent the recurrence of of the fit are first 1st Palliative, as bitters of all kinds, 2d astringents as allum & salts &c. 3d Bitters & astringents combined, juice of spiders in bread or the web made into pills, glue Arsenic ~~Radical~~. from 1/16 to 1/8 gr. in substance or solution, ~~glue~~, the tourniquet applied around the thigh so as to accumulate the blood in the superior part of

* This noble remedy has retained its exalted character near 200 years — It may be given in substance, decoction, infusion or extract — The Decoction & Infusion sometimes succeed when Bark in substance has failed

× with Bitters of all kinds Aromatics &c

part of the body - it prevents the chill & lessens the fever. But the Peruvian Bark is superior to any of these and stands unrivalled in intermittents & when ever it fails it is in consequence of inattention to the state of the system, or because the bark is of a bad quality, or not aided by auxillaries - Emetics are sometimes given as preparatory to the bark - but purges are preferable, discharging the bile &c more effectually. It is most effectual when given just before the expected paroxysmm.* It is not safe to give it in tincture unless greatly diluted & to those accustomed to Spirits. Children may have a waistcoat quilted with the bark, or it may be given in injections; Sometimes the paroxysm succeeding the first dose of bark is worse in consequence of it - this is a good sign. It may be given with snake root orange peel &c* in order to make it more pallatable. The following causes may fail to make it cure. 1st Giving it in the inflammatory state of the system - 2d In visceral obstructions of the Liver - Spleen &c 3d In an highly excitable state of the system - 4th In exhausted state of excitability. 5th Its

long use losing its effects thereby. 6" In inducing costiveness or diarrhoea 7" Its being of a bad quality.
The remedies for the inflammatory state of this fever are V.S. purges, low diet &c & then the bark seldom fails. For visceral obstructions the same with the addition of blisters. These two states have always a sizey blood. In all intermittents that are protracted the disease is kept up by congestion or obstructions for these V.S: & Mercury are necessary. Decoction or infusion is often effectual when the powder fails, this is owing to the accumulation of the excitability being too great for the stimulus of the powder, or in other words to the disproportion of the stimulus to the excitability. Bitters cure when bark fails & for the same cause. Recollect that I mentioned formerly that the willow bark cured when the Peruvian D° killed. When excitability is nearly gone large does of the Bark as 4 to 5 Oz a day with ginger cloves flores Martiales &c It is very powerful when given with iron. The lancet should not be forgotten in chronic cases. After long use of the bark lay it aside & give other tonic

bitters a day or two – if it induce costiveness join with it a little rhubarb, if diarrhoea a little laudanum. If after all this it fails suspect it to be bad & get better – After the cure a few doses of bark shd be given about the full & change of the moon. Blisters when applied to the wrists are often of the most evident advantage in obstinate intermittents. Lying in bed & fasting on the day of the expected paroxysm will often prevent it. If all these fail recourse must be had to a new climate. I once knew a man to be cured by going to sea, after bark arsenick &c. &c had failed. But we must recollect that medicines sometimes do not produce their good effects until after they are discontinued. – I cannot take leave of this subject without taking notice previously of the discovery of that invaluable medicine the Bark. 1st It was discovered by an Indian. 2d Introduced into use by a Priest 3d Revived by regular bred Physicians. 4th Revived by a Quack & lastly still unpopular in France & Italy. –

Intermittents sometimes appear in ~~distinguished~~ disguised forms – 1st In periodical headache, tooth or ear ache &

The remedies are V.S. Purging Blisters. & then the Bark
The tooth if it be decayed should certainly be extracted - 2d
In Periodical Convulsions, in children either as Quotidians
or Tertians. — 3d In periodical vomits of bile: Bark
should be given here. 5th In periodical dysentery here the
bark should be used freely - 6th In periodical Coma & Apo-
plexy, by V.S. blisters &c then the bark - 7 Eruptions on the
skin. 8 In periodical Gleet - 9th In Nictolopia or hen blind-
ness or an inability to see after night &c - all these are
known by occurring in the time of intermittents. 10th In
period
Dropsy 11th In periodical fever of part of the body only, as
in the arm &c. The consequence of these half cured inter-
mittents are 1st Pulmonary congestions cough & fever - the
remedies for which are V.S. purges mercury &c - 2d Ob-
structions of the Spleen, Liver Omentum &c. These are the
effects of such weak stimuli as are not sufficient to in-
duce disease, or more frequently the consequence of a
want of sufficient depletion. Bark. Steel &c are here
proper 3d Sore legs, swelling of the limbs, jaundice -
dropsy &c V.S. mercury frictions &c 4 Hectic fever - here
salivation promises most. — The next form of Fever is —

* Hectic fever differs from intermittents and the following ~~wanp~~ marks

* 2 Sometimes chills without a paroxysm
3 No chile

The Hectic — This is often confounded with the Intermittent. The hectic often occurs in the Phthisis Pulmonalis. its causes are 1st Ulcers, as in the joints &c. 2d Schirri or Scrofulous tumors in the glandular parts of the body as in the Uterus &c. 3d Obstructions in the viscera as the Liver &c; gall stones calculi &c. 4 Sharp needles pins &c. Recollect the Lady cured of a Hectic only by the discharge of a pin from the Vagina. 5 Leucorrhoea & Menorrhagia. 6th Poisons which have been called slow. 7th Ordinary Stimuli rendered powerful in consequence of an increased excitability 8th Atmosphere rendered impure in consequence of mercurial exhalations. 9th Hamilton mentions its being induced by Nostalgia. & By Pregnancy

*~~Its marks are~~ 1st They are seldom regular longer than three or 4 paroxysms *2d Sweats succeeding chills 3d The sweats give little or no relief ~~for~~ 4th the fever continues after them 5th chills frequently appear during the sweat for 10 or twelve days at a time 7th Urine pale during the intermissions & turbid in the intervals 8th Great pains resembling those of Rheumatism & swelling without

* ~~Occurring more frequently than~~ 1st The Pulse is
1st Synocha or Synochoid, Typhus or Typhoid —

pain & sometimes a sudden disappearance of the swelling. 10 The Hectic sometimes comes on suddenly but generally steals on gradually, it being sometimes a month before the patient is aware of its approach. 11 There is often a circumscribed red spot on the cheek, or both, having no intermediate shade between it & the colour of the face which establishes its character. People about 45 are more subject to it than at any other age. 12 The pulse varies very much in this disease, it seldom fails to give warning of its insidious design. 13 The patient in the hectic seldom complains of pain in the head, which is an almost universal symptom in intermittents. They sit up & without any inconvenience. The arterial system is chiefly affected. 14 Women of 40 to 45 are often subject to the hectic from schirri & obstructions; wounds poisons leucorrhœa &c may all give rise to it. The cause of fever from these may be an unsuccessful attempt of Nature to carry off the exciting cause. 15 Powerful stimuli acting on accumulated excitability. The remedies are, the removal of tumors, exciting causes &c as nausea - for these may induce it. 16 J. when the pulse is (for

it should be strictly attended to) typecha or typechoid or when that cannot be used nitre & other feeble evacuents. Bark Steel & the Cold Bath are the remedies generally recommended. A milk diet has been used to greater advantage than either of these, but from the great nourishment it contains the propriety of its being given is doubted. I have used every tonic Bitters Metallic Acids & to no purpose. Infusion of Malt has been used with success. Governor Spatta of S^o Carolina was perfectly cured by an old woman of this fever with this infusion. the manner in which it is made is to take 2 3 or 4 spoonfuls of the sifted powder of Malt to which add a quart of boiling water, 2 or 3 spoonfuls of sugar & a little wine. 2 or 3 Quarts of it may be taken daily, drinking sediments & all. Arsenic has been recommended here, also digitalis, bark, mineral acids bitters &c but they generally aggravate the symptoms of the disease unless the pulse be typhus. From all this it appears that like the spirit of Hercules it can only be shaken off by labour & exercise; but sometimes it is out of the patients power to take this exercise from want of means, as improper weather &c Are we then to desert them? May not some new action be created in the system? as by salivation. To prevent the

chills from 20 to 30 drops of laudanum are used with success. in some cases it was the only medicine that checked the disease. The most valuable of all the remedies are riding on horseback, salivation, hard labour, V.S. & laudanum. Hunter mentions a case which was cured by amputating a diseased limb & which was the supposed cause. Was it by the removal of the Cause or by creating a new action, that this cure was effected? I believe the latter.

Febricula comes next. It is common to the South in Autumn & is known by the name of inward fever The patient is neither sick nor well. his hands are hot. It is best known by a frequent weak quick pulse, dry tongue, little head ache & high coloured urine. It only requires the stimulus of a glass of wine to be thrown into an intermittent. The remedies are vomits, gentle purges &c but above all blisters, bark, & V.S. is sometimes necessary. This is so common to the South that few escape it. —

Critical Days. — In spite of all the changes of climates critical days have continued for ages. they

+ Advantages to be derived from attending to Critical Days —

were even noticed by Hippocrates. All fevers have critical days which are more plain & distinct in uniform climates Dr Lenac calls the tertian the primary form of fever & its critical days are on the 3d, 5th, 7th, 9th, 11th after which the Quartan type is assumed & then the critical days are the 11th, 14th, 17th & 20th — & after the 20th on the 27th, 35th & 42d. The Yellow Fever generally terminates on the critical days of 3, 5, 7 &c In consequence of extreme debility the crisis is sometimes observed on a non critical day. Dr Jackson informs us that of 60 cases of intermittent fever which terminated favourably 10 terminated on the 3d 10 on the 5th 20 on the 7th 10 on the 9th 5 on the 11th & 5 on the 17th day. Of 9 that died one on the 6th one on the 7th six on the 8th & one on the 10th. All continued fevers are protracted Tertians as is evident from the exacerbations on the third day. The continued fevers are more violent on critical days when the remedies are V.S. &c which should be attended to. The present mode of practice may derive some advantage from observing the critical days in continued fevers where the remissions are not observed; The fever will be of the greatest force on the odd day & shew a Centripetal tendency on

those days then Vs. & purges should be used. If the paroxysm of fever be worse on an even or noncritical day the Physicians attention is so much the more necessary as the patient is then getting worse & the fever becoming more dangerous. It generally terminates in death in the 4 or 5th day. When any doubt is entertained about giving bark & other stimulants give them on the non critical days. A very great advantage arises from attending to critical days, we may keep up the hopes of the patient & thereby obtain his confidence. The critical days change in different seasons. In this place the Q Fever generally terminates in August on the third day, in Sept. on the 3d & 5th. In Oct. on the 5th & 7th & the later in Oct. the more protracted - & this I suppose is applicable to middle ~~States~~ Climates. Dr Balfour & Lind with some others say that fevers show exacerbations on the full & change of the moon & for about 3 days before & 3 days after the change. I believe in the effects of the Moon in these cases & Dr Mosely says that fevers grow worse at such times in Jamaica - from this we may learn to use 1st More powerful medicines at these two Lunar periods — ¶

2d Avoid more particularly all exciting causes at these periods. 3d To guard against relapses on those days. 4th Not to give tonics about these periods.

Of the Prognosis of Fever, or of the signs which indicate the issue of fever in life & death.

1st These signs vary in different countries, in different seasons in the same country; in different people, in different ages & in different grades of the same fever. 2d There is great difference between the same grade of fever in adults & children which arises from 2 causes - 1st Children are more tenaceous of life than adults hence they frequently recover after a black vomit & half closed eyes. 2d They are not frightened at the black vomit or other fatal symptoms as adults are. 3d There is great difference in different periods of life. 4th The same signs differ in meagre & robust habits 5th In the particular state of health in ancestors. for a person from healthy ancestors will survive a more violent attack of fever, than one from sickly ancestors. —— Signs of life & death in general states of fever.

1st The violence, danger & duration of fever may

be predicted from a knowledge of the violence &c of the remote causes, the predisposing, the exciting &c & the suddenness of the attack without premonitory symptoms 2° As the union or intimacy of the different parts of the system becomes broken the fever is more dangerous, as in the Hectic, & less so the more general the fever is. In the hectic the arterial system alone is affected & all the other systems are unaffected. We see it too in spasms or Convulsions where but one system is affected. 3° Paroxysms being worse on even than odd days, those fevers which creep on slowly are worse that those which come on suddenly. 4th. The absence of appetite & chill unfavourable, but the coming on of the chill after V.S. is favourable. Anticipating fits unfavourable & procrastinating fits favourable. Absence of pain & the patients saying he is too well unfavourable, if a chill comes on in the close of a fever it is favourable. The sudden recovery of strength is unfavourable.

Signs of Life & Death are

1° Direct debility in the beginning of Fever is not alarming but at the close is a sign of death appearing in tremors &c

* 4th Absence of, or immoderate thirst unfavourable, sudden subsiding of these with a dry or black tongue, & thirst for uncommon drinks are all unfavourable. —

Lying constantly on the back, sliding down in bed, a disposition to Faint; raising the legs in bed. tremors of the tongue, are all unfavourable symptoms. 2° Absence of pain dangerous in Malignant fevers but less so than when the pulse is tense & the patient says he is too well; return of pain after depletion favourable. Long prostrated pains are dangerous & more so in vital parts than elsewhere, they waste excitability. Pain returning after depletion & occupying external parts in every state of fever. favourable, as they shew a Centrifugal tendency. 3° Partial heat or Coldness if long continued, as cold wrists when the hands & fingers are warm is always fatal. Cold feet, & breath long protracted chilliness a sense of heat on the skin, or in the stomach are all unfavourable.* 5th The pulse being preternaturally slow (except in old people) unfavourable, more so in children. An intermitting pulse is dangerous, we sometimes meet with this where there is no danger & where it continues from habit in convalescents. (I must however observe that the intermitting pulse is without danger in some instances) I once saw it attend the whole time of con-

convalescence; the danger is in proportion to the number of intermissions in a given time; when the pulsation is 120 the case is alarming & when as high as 180 few recover. I once saw the pulse 208 in hectic fever which proved fatal. 6th A white tongue is the sign of inflammation, a yellow one of bile, a red smooth tongue, a black & natural tongue are very dangerous in malignant fevers & generally fatal. A Tongue becoming moist after being dry, or becoming gradually moist first from the edges & gradually spreading over the whole is favourable. A hot tongue dangerous, but a cold one fatal. Sores on the tongue or lips are generally safe & favourable, but always fatal when in the fauces tonsils and throat. Take care that you are not deceived by matters foreign to the disease, as chewing Tobacco, when that appetite remains, port wine, liquorice jellies &c or a dry tongue made so by sleeping with the mouth open, or moist by drink or by art 7th Eyes half closed fatal in every case in adults except in dysentery. One eye larger than the other, a contracted or dilated pupil, muddiness glassiness, continued motion & winking of the eyes, squinting

ting, blindness; false or double vision, catching at imaginary objects - matter formed at the inner corner of the eye, involuntary tears, a felon coming & going off the cornea are all unfavourable. The pupil of the eye becoming clear & lighter is favourable. 8th Deafness favourable in mild diseases but the reverse in Malignant. Tinitus Aurium, pain from slight motion, a revival or extension of the sense of hearing after deafness all unfavourable. 9th Insensibility, insensibility to cold, blisters &c unfavourable, sudden restoration of sensibility to cold pain &c fatal. Great pain attending the touch of Blisters in mild fevers are favourable. It is a favourable sign if the patient asks you how he is before you put the same question to him & more so if he asks you about your own state of health. Gaping sneezing picking the nose &c are favourable, they show the return of sensibility. Return of old pain in former diseases & looking round quickly are favourable - an exception to this occurs in asthma. 10th Hollow eyes, contracted skin on the forehead, a frown, a resemblance of ancestors, the Hippocratic countenance

& one naturally placid are all unfavourable. The fever-ish countenance is favourable, as is the florid; but not the livid colour of the nails; expansion of the cheeks unfavourable. Asthma will sometimes shew the most of these symptoms of death & not be dangerous. 11th Respiration sometimes slow & sometimes quick, expansion of the Ala nasi, a hollow moaning occurring when awake but worse in sleep, cold breath & the rattles are fatal in Adults. 12th A Quick sharp & unnatural voice paraphonia palatina are unfavourable. Aphonia more so - but I have seen recoveries from both of them. 13th Lying on the sides after lying on the back always favourable. 14 Old sores returning, eruptions about the mouth, spontaneous salivation & sweats are favourable. The priapism is generally favourable, but in 93 it preceded death in one case. Dr Haller relates a case in which it continued 2 hours after death. Mahomed died with this symptom. Viscid matter adhering to the teeth, gnashing them, convulsions tremors &c are fatal. also hiccup in Malignant fevers but not in mild 15th A return of appetite for food, tobacco, coffee &c are favourable

x A stool at the usual hour in the morn^g. is favourable shewing that Nature is recovering her empire over the System

16th Obstinate Costiveness from defective secretion, white stools, the involuntary discharge of stools & urine, the discharge of flatus without noise are all unfavourable, but when flatus is discharged with noise it shews a command over the sphincter ani, this the Dr learned from an old woman. Green & black stools are favourable in bilious fevers. Stools are healthy when they are bene odorata & bene colorata. Worms when discharged alive by the Anus favourable but not when discharged by the mouth; when discharged in the beginning of fever mixed with slime & when alive favourable, but when discharged dead & in the close of fevers & unfavourable 17 Vomitting is alarming; 18 also bloody urine, suppression of do, pale, high or coffee coloured urine are all unfavourable. Milky urine denotes a disease of long continuance, when it is cloudy it is favourable because it shews the sign of a crisis. Gravelly matter adhering to the sides of the pot is favourable, this gravelly matter in calculus cases falls to the bottom & in fevers sticks to the sides of the pot. 19 Sweats in mild fevers if universal are favourable, but if partial are not so. An acid putrid or cadaverous smell or taste of the

sweat unfavourable & generally fatal. I have known a recovery after this nadoi rather than sudoi in fevers Abscesses & glandular swellings, at times favourable. Cold sweats unfavourable.

— I come now to the signs of Life & Death as they regard the mind — Apathy unfavourable. A silent delirium more alarming than a talkative one, if this last symptom occurs after being suspended it is favourable but if they continue throughout the disease, this inference cannot be drawn — Good temper is favourable, an enquiry after news, the hour of the day or night, a disposition to be removed, or to change beds are all favourable. A great desire of life & sleep of moderate length are favourable. Want of solicitude & friendship for the Family & relations unfavourable, but their return after being suspended is favourable A slow answer to questions, wakefulness &c unfavourable a return of ill humour favourable. Sudden cures are seldom wanting especially in chronic cases. All the symptoms may deceive us with a few exceptions. — I have seen recoveries from the most unfavourable symptoms and vice versa. A Physician should never forsake his

patient whatever may be the signs, nor should he give a prognostic unless pressed, but let him say that worse have recovered & those of better symptoms have died. If pressed positively to say let the prognostic be unfavourable, that if the patient recover he may be thought wiser than himself & his skill more esteemed than his judgment admired.

Having now Gentlemen spoken of the primary forms of fever I must next observe that there are six forms of fever more strongly dependant upon the arterial system than any others namely the

Yellow Fever. The Inflammatory bilious, mild bilious, Intermittent or R — & Febricula.

Also that there are four more particularly connected to the alimentary canal, namely the

Dysentery, Cholera, Colic & Diarrhoa. —

These you will do well to remember. We will now proceed to deliver a few remarks upon the cause symptoms and cure of those states of general fever which are known by the name of the Yellow fever, & bilious Dº Plague, Jail fever, the fever from Opium & the bite of rabid animals.

4th. Bilious States of Fever. – I shall only say a few words about these forms of fever because so many writers have spoken of them, the best of which are Cleghorn, Hillary, Jackson, Clarke, D. J. Hunter, & Lenac. & 1st of the Mild Bilious. This assumes as many forms as the Yellow Fever, & the cure is the same. The pulse is moderately synochus & the blood seldom sizy. The Remedies are 1st V.S. when the pulse is active. 2. Purges as Salts. Cremor tartar & Senna & sometimes Calomel. 3 Gentle Vomits. 4th Diluting drinks & cold water 5 Blisters after the 3 or 4th day to the wrists, & after it has assumed an intermittent type the bark is a specific when the bark is rejected chammomile tea columbo, quassia, gentian &c may be used with great advantage. Salivation is seldom necessary in this form of fever, but sometimes necessary to prevent relapses; the sooner this fever comes on in the fall the more general it will be. 2 Dry air produces inflammatory & remitting fevers, moist do Intermittent & bilious fevers. These forms frequently change to a grade half way between a mild & yellow fever. I have called it the inflammatory remittent & have described it under the head of Break=

lone fever in my Inquiries. These fevers still assumed a more malignant form in 1793 which was the Y. Fever (for an account of which I refer you to the 3 & 4th Vol: of my Inq:) also to Hillary, Mosely, Cox's Museum &c. You are not to expect to find the accounts of the symptoms &c similar in all, for it appears sometimes in the form of Synocha - Dysentery, Palsy, Apoplexy, different kinds of convulsions, buboes &c. In the form of intermittents when it kills as certainly as when it does not intermit; it frequently terminates on the 5th & 7th day. It frequently appears in the form of chronic inflammatory, chronic Typhoid &c & sometimes in febricula, in a dumb form in which the muscles preserve their excitement, walking even until just before death; in the form of universal yellowness which is not dangerous, fainting or a disposition to faint upon being moved, sweats coldness, petechiæ on the skin &c. It generally occurs in the middle of August, the pulse slow, not active at some times & the reverse at others, a natural tongue with great heat on the skin are dangerous symptoms; a person died of pain in the toe only, who after being opened

shewed evident signs of great inflammation in the Stomach. The exciting causes of this are swimming gunning, vomiting by eating mushrooms, sleeping in a damp place, fractured leg, relinquishment of former occupations; these are what I have collected in this City especially in 1793 at which the system was like a florence flask. In consequence of the brain having white serum in its ventricles & there being great marks of inflammation in the Stomach, when no vomiting takes place it has been supposed that the black vomit does not occur till after the death of the Stomach

The Remedies for vomiting are ℞ ℥ Chamomile tea, milk or milk & lime water of each equal parts, this has allayed a vomiting where every thing else has failed; sweet oil, thin milk & molasses, Alkaline salts, Oatmeal roasted & tea made of it, spirit of turpentine 10 drops with sweet oil or molasses, White sugar ℈ij laudanum 30 drops mint water ℥iv made into a julep has been highly recommended; Total abstinence, by it the stomach puts itself as it were into a good humour blisters to the pit of the stomach, wrists or ankles, milk

& lime water injected into the anus, large doses of Opium by the mouth & rectum, cayenne pepper. For a diarrhoa, testaceous powders &c. For a pain in the head ice in bladders or cold water to it; injections of cold water for pain in the bowels; in the stomach, gentle frictions of sweet oil & laudanum; for Coma - cupping, blisters, or a plaister of mustard all over the head. —

2d. The Plague. This is the offspring of miasma. The symptoms differ from different causes, as habits customs climates &c. There is no form of Yellow Fever in which the Plague does not appear; it appears in all the thirteen primary forms of fever. It is altered not only by Climate &c but by diet, drugs, manners, Religious &c. It prevails in no part where there is no animal or vegetable putrifactions. It is not specifically contagious; it appears in dysentery & mania. It never was or ever will be exported from one Country to another. It lessens as the intercourse between nations increase. The causes which prevent it here are 1st the highly cultivated state of the country. 2 The great consump-

tion of vegetables. 3 Better accomodations 4th Cleanliness. It is kept up in Egypt by the following causes. 1st The uncultivated state of the country. 2d moisture. 3d Filthiness. 4th bad constructed Cities, as narrow streets &c 5th The doctrine of Predestination. 6th By believing in its importation. It is checked by cold & hot weather like the yellow fever & by rain. It appears after the recess of the nile & goes off about the middle of June. – The Remedies are V.S. this is sometimes useful, tho' the system is generally so prostrated as not to admit of depletion. sweating, purging, vomiting &c Opium – Salivation is too slow to do good. The Plague generally terminates in sore throat & mouth, Diarrhoa Influenza, Gonorrhoa &c (see Webster's Medical Reports). ——

3d Jail Fever. This is sometimes attended with 1st So great a degree of morbid action as to require 2 or 3 Bleedings, or even more when the complaint is attended with obstructions. 2d It appears sometimes in Chronic or acute dysentery. 3d It is attended occasionally with inguinal swellings which have been mistaken

for bulloes. I should have been deceived but for Monroe in the Army which I kept continually by me when Surgeon to our late army 4th It spreads by excreted matter & cold weather; approaching a warm climate drives it entirely off. Dr Hunter informed me that the soldiers never had it when they kept in the open air 5th It is sometimes communicated by one in whom it is dormant, this may be beleived by the following circumstance. I knew a case of a man who was never affected by handling a poisonous vine, but his wife always felt the effects of it altho' she did not touch it. 6th This fever may be shunned by avoiding all the predisposing & exciting causes mentioned. It may be cured by accommodating the remedies to the different states of the system, when the Pulse is Synocha, Synochus, Synochula or Synochoid. — We will next speak of —

4th Fever induced by Opium. — This is truly a Malignant state of fever. The Remedies are 1st V. S. when the pulse is active or much depressed 2d Emetics, when all others fail a feather may have some

* This is a Fever of the highest grade. It is generally accompanied with symptoms of great Malignity & inflammat^y diathesis & is to be cured in the same way as Malign^t fever from any other cause. It affects the whole system but chiefly the Larynx & Glottis in its latter stages a spasmodic contraction or sudden spasm of the glottis by stopping respiration Dr Physick thinks is often the immediate cause of death. He has very ingeniously proposed laying open the Larynx in this case below the Glottis & introducing a Canula that respiration may go on. The Larynx & Glottis being so peculiarly affected accounts for mad dogs scarcely ever barking. If the dog barks before he bites it is a pretty sure sign he is not mad. Like the Plague this fever in different constitutions & different countries have yielded to very different remedies. Sometimes it has, if we may believe authors been cured by means of stimulants - but oftener by depleting remedies - Vide Pinger strong vomits. If the pulse be active go on depleting, if otherwise stimulate suddenly - Plunging the Patient in hot water, has it is said cured - What would be the effect of inducing inflammation on the skin in this fever? - For preventing Hydrophobia after a person is bitten by (Dissections shew the trachea & Glottis to be inflamed)

effect indeed tickling the throat with a feather is the most successful in the first instance. The larynx may be retentive of its sensibility when that of the Stomach is lost. 3° Cold Applications to the stomach when there is much febrile heat. 4th Cordials after depletion the best of which are Ardent Spts and Ether - 5th Stimulating injections & Cataplasms to the feet - 6th Flaggellation.

5th Fevers produced by the bite of a

Rabid Animal.* (For a full account of this I refer you to the 2° Vol: of my Inquiries).

6th Fevers produced by.

Poisons. There are three kinds of poisons - The Animal, Vegetable & Mineral. The Remedies for these are 1st - Such as act by the Mouth or Bowels. 2d Such as destroy the effects of the poison by forming a mixture & 3° Such as destroy the effects of the poison by forming a new & less dangerous action. The first are Vomits which may be excited with the finger feather &c. White Vitriol is the quickest of these medicines in its operations - Snuff may be used when other medicines fail, in the dose of about 6 grs to discharge from the bowels

by a rabid animal there is no Specific. No not even a salivation. The best preventatives are immediate excision of the wounded part frequent ablutions, keeping the wound open & running a long time —

~~this so a not par~~

* The Worst form of Malignt fever is excited by the bite of the Rattle Snake — To the state of this fever the remedies must be accommodated

bowels, purges of sweet oil & milk & water, diluting drinks. To give those of the second head such should be taken as would make a neutral mixture. The remedies under the 3d head which are to cure by creating a new but less dangerous action, are Opium & Ardent Spirits. The cures that have been made by these remedies show us that we should never desert our patients in this disease. When these remedies fail, excite an action on the skin; recollect the dog cured of nux vomica by Flagellation, & the 2 cures given by Darwin of the effects of Flagellation*. When the fever is slow treat it as fever from other causes. sweating has been attempted as proper, if the poison shew a tendency to pass off this way sweating should be used, for this purpose Serpentaria Seneka &c but if they cannot be procured readily the bol: Alkali should be used. Mosely says that an action excited in the Stomach acts in the same way as a cure when the poison has been taken by the skin, as an irritation excited on the skin does when the poison has been inwardly taken. Sometimes the poison acts prima=

*: The Patient will faint perhaps after the 1° 2° or 3° bleeding, but not afterwards —

rily on the skin inducing erysipelatous inflammation & morbid excitement in the bloodvessels.* We shall now consider certain states as they occur in Malignant fevers. There are

1st The Sweating State of Fever. This occurs in many diseases, as Pleurisy, Consumption &c it may be either with strong or weak morbid action, that with strong occurs in the waking state, in the Yellow Fever, Pleurisy Intermittent Fever &c & may be called the Tonic sweat; that with weak occurs in the sleeping state, in the Plague & hectic fever & may be called the Atonic sweat; they are fetid, Yellow Green acrid &c In cases of great morbid excitement where the sweating state comes on V.S. would be proper, sitting up in bed &c In weak morbid action the remedies are Elixir Vitriol & other tonics, & even sometimes in the Typhoid state of fever a small V.S. will prevent sweats.

2d. The Fainting State. This occurs in all those fevers of a violent & Malignant form. The Remedies are small V.S. emetics &c.

3d The Burning State. This has been called

causa, but it is rather the consequence of disease; it is the calor mordens, the blood when trickling down the arm is burning to the patient, It is a symptom of Malignant fever. I have known the heat to be very great when the pulse was imperceptible, hence we may determine that heat is not proportioned to the violence of the circulation of the blood. The Remedies are V.S. & cold applications

4th The Cold & Chilly State. This is often protracted for several days, is sometimes partial & sometimes general. The remedies are V.S. &c this has often removed the cold from the feet & after V.S. friction is an useful remedy. —

5th The Petechial. This is the Malignant form suffocated on the skin & the system is generally prostrated when the petechia appear. These petechia are to malignant fevers what the prickly heat is to the mild bilious. The — Remedies are those used in the prostration of the system. — Bark Wine, Cordials. The next form of Fever is the

Intestinal in which are included Diarrhoa, Dysentery, Cholera Morbus & Cholic - & first of -

Diarrhoa. Here I shall confine myself to the acute & not the chronic. This occurs more in the seasons in

which cold nights succeed hot days, this is a check to the perspiration determining it to the bowels, also in moist weather. It is occasioned by eating unripe fruit & that in large quantities; by large quantities of fresh meat as food after being accustomed to salt meat; putrid meat &c. The remedies are frequent purges, diluting drinks &c after which laudanum internally or about 40 drops with ℥iv of flax seed tea injected up the rectum.—

Dysentery. This is a higher grade of Diarrhoa. It is to diarrhoa as Gout is to Rheumatism or Consumption to Catarrh. The discharge of mucus alone from the intestines in dysentery may be called a Gonorrhoa of the bowels. As the dysentery is often preceded by diarrhoa so it often goes off in that form. The causes of Dysentery are the same as those of diarrhoa. Bad wheat has induced it. Sour wine has done the same, human effluvia produces it too. It sometimes comes on as the diarrhoa with fecal discharges, but more frequently by costiveness & no discharge of bile. The Patient is attended with great pain & inclination to stool, the perspiration is generally stopt, the discharge is sometimes

mucus without blood & vice versa. The pulse is sometimes quick & at others active; the pain in the bowels is sometimes up to the point of the Sternum at other times low down in the rectum & sometimes in the whole canal. It is sometimes general in the Intestines & no pain at all, a membrane is often discharged which is the Coagulating lymph formed into a membrane by inflammation; it is sometimes attended with faintness & a suspension of motion, weakness, sometimes so great as for the patient to be fatigued by the least exercise, even speaking will tire him. Again we see patients walking till just before their death. It generally terminates in a few days, but is sometimes protracted for several months. It is then called Dysenterica or Chronic dysentery. — Dissections shew the following marks in dysentery. 1st No marks of disease; this is noticed by Dr Zimmerman; the bowels in this case were diseased beyond inflammation; we may suppose death here to have come on before inflammation could take place. 2d Inflammation 3d A Membrane 4th Pustules on the intestines 5 Tubercles 6 Gangrene, tho' this is rare 7th The inner membrane of the small intestines abraded 8th dis=

=eased Liver & enlarged Spleen - Dysentery submits to the laws of Epidemics, & the remedies should be accommodated to the different forms. It is Malignant, Inflammatory, mild or Typhoid & Intermittent. It prevails more in high than in low situations, it appears in heights under which there is perfect health; it affects country people more than those of the town owing to the continual use of cordials by the latter; it alternates every year or two with the bilious & yellow fever; it changes in the same year, & in the same person alternates every year or two; sometimes begins as dysentery & ends as bilious fever. Dysentery sometimes prevails in one part of a City while the bilious fever exists in another both requiring the same treatment. It sometimes terminates in Opthalmia. Dr Clarkson informs us that it sometimes ends in Salivation. It is more fatal to Children than old people than to those of a middle age. It spares no age nor will any mode of life be exempt from it; it is more common among the blacks of the west Indies than the Whites. If it occurs in the beginning of a rainy season it is more easily cured & vice versa. There is a disease in Quito in South America which is

similar to dysentery it is called (Val Melle or Veho) it is cured by thrusting a part or the whole of a lime up the rectum; this is mentioned by Baron Humboldt - Are there remedies to prevent this disease? Yes. during its predisposition, a gentle purge will prevent it; purges of salt water will have the same effect. I once heard of a commander who carried his soldiers to salt water every morning & made them drink half a pint each. this practice was an effectual preventive to the disease. When salt water cannot be obtained Glaubers salt may I believe with equal propriety be used. The remedies should be suited to the state of the system & the prevailing Epidemic When the system is prostrated below the point of reaction in the first stage of the disease all depletions should be avoided; purges vomits &c have frequently caused death in such cases. The proper remedies are wine, bark laudanum, cordials &c & cordial injections. —

Inflammatory state of Dysentery. Here we must again be regulated by the Pulse, Pain &c V.S. is generally requisite. I have caused this operation to be performed from 1 to 20 times in a patient with success, this

was when it preceded the Ny. Fever. Dr Cleghorn always used to bleed when it came on with chillness & with no discharge of bile. Purges are always proper & ought to be repeated often. castor oil, lint seed or sweet oil - christals of tartar & sulphur are proper. The domestic ~~medicines~~ Laxatives are fresh churned butter milk in large draughts. Sir John Pringle recommends calomel & Rhubarb but they should never be used until others fail. Tobacco clysters should be used repeatedly. Vomits have been forbidden, but if there be much nausea they are necessary - Limes have been used, salt water, sal soda alone cured our prisoners in Tripoli. Are sweats proper? Dr Mosely speaks highly of them tho' I think them injurious unless their use be pointed out by nature. Diluting drinks should be used, flaxseed tea, gum arabic, hartshorne, mullen tea, rice water; shells of hazle nuts, tallow & starch in warm water. Perhaps the following prescription which varies but little from what I have just told you before will be the most valuable in Dysentery. - Mutton suet with milk, hazle nuts, tallow & starch; Chalk, salt of tartar, gum arabic & laudanum should be injected. Blisters are proper to be applied to the wrists or belly. The

skin and bowels act on each other as antagonising muscles I have heard of 2 cases of Men who were cured of dysentery by being whipt. Opiates should be given after the reduction of morbid excitement; if given before the pain is thereby increased. Opium should be given in small doses by day & in large D° by night. Towards the close if the disease should run into an intermittent form bark should be used, if chronic a salivation. This last has now become common. The practice must be varied in different years & Dr mentions that during 60 years practice he never saw the dysentery alike in a successive year. — Here I will propose 2 remedies often effectual in this disease 1st Lying on the belly. 2d Smoking Tobacco. When it assumes a mild form V.S. is seldom proper, but cordials should be used. When pain becomes periodical bark & laudanum should be used. Remember Gentlemen what I told you a little while past; that dysentery like the yellow fever changes every year & that a change of remedies is consequently necessary. V.S. may cure this year & it may fail the next & purges take its place. The Spaniards on the Mississipi river seldom recovered of dysentery while

* Tenesmus arises from 4 Causes — 1st From acrid substances in the bowels as bile &c 2° Ulcers 3° Affections of contiguous parts, as the bladder, Vagina Uterus &c — 4 Scybalæ or what is called <u>ball stools</u> & Tubercles

the Americans are almost sure to recover. This is owing to the influence of diet, as the Spaniards had for their breakfast 4 pods of pepper, one herring & a spoonful of sweet oil mixed. In cases of great weakness the patient should not rise from his bed to evacuate his faces, a bed pan, old clothes or a piece of soft leather should be used to receive them in. The pain of tenesmus may be cured by an injection of laudanum & sweet oil a spoonful each. Equal parts of sweet oil & laudanum applied upon a bit of tow to the anus is useful in tenesmus, it acts like a charm in easing the pain. The Chronic dysentery is cured by a salivation, riding on horse back &c. Dysentery ends 1st in Health 2d. In chronic diarrhoa 3d in Palsy, 4th in Rheumatisms 5th in dropsy 6th in Tetanus & tympany. The favourable symptoms are 1st discharge of dead worms 2d Suppression of Urine. 3d Faces intimately mixed with blood which shews that some vessels or vessel high up in the intestine is broken. Homorrhages are more alarming sunken countenance, restlessness, hiccup & a squeaking voice are all fatal symptoms. Is this disease Contagious? Only by excretion. It is most certainly contagious from human miasma. I

* in the upper limbs as well as pain in the Stomach & Bowels

deny that the dysentery ever spreads in a way similar to that in which the small pox is disseminated. I shall conclude my account of this disease with 2 remarks 1st That when left to itself it is generally fatal. 2d That there is no disease so completely within the powers of medicine

Cholera Morbus - This is a form of bilious fever. It is attended with a bilious discharge upwards and downwards, it is also attended with cramp &c - it is excited by summer fruits, night or cold air &c. The remedies are to be suited to the reigning epidemic, pulse &c. Since the year 1793 I have bled children in this disease with great advantage. Opium in this state does harm. In a moderate state of the disease, cordials are serviceable as warm toddy, peppermint tea &c warm embrocations on the abdomen hot drinks &c - Milk will stop the vomiting when other remedies fail.

Bilious Colic. This is known 1st By bilious fever being epidemic or preceding it 2d By being ushered in with a chilly fit this distinguishes it from common Colic 3d By a discharge of bile upwards & down-

* This is the worst state – No cough is a sign of inflammation of the Pleura * see p 20

wards 4th By the pulse being more or less tense & active. It has occurred in sporadic cases in time of our Yellow Fever. The remedies are 1st Purges injections, blisters, warm bath, if all these fail then by a salivation; this last unlocks the bowels as soon as the mouth is touched. Thus Gentlemen I have finished our account of the Summer & Autumnal diseases. For the means of obviating the effects of miasma in producing those diseases I refer you to my Inquiries 4th Vol:-

We proceed next in order to treat of the Pulmonary forms of Fever, in which are included, Pulmonary Catarrh, Influenza, & Pulmonary Consumption, & first of

Pneumonia Vera. In this the pain is not always confined to the side it extends sometimes to the shoulders, kidneys &c 2d We see this disease sometimes very acute without pain. 3d Without cough as in the yellow Fever. In the most violent cases when the Stomach & Lungs are very much excited they are diseased below the point of reaction & sometimes below the point of sensibility & consequently a cough cannot be produced 4th The pulse is often

* The distinctions of inflammation of the Pleura between those of the lungs is altogether unnecessary
+ I attended a Patient in the 22d attack
# Measles, Dysentery & Diarrhoa suddenly checked, repelled eruptions suppressions of Habitual sweats, & menses - Malignant fever falling on the breast
On Dissections - the Pleura is sound dense or dark - at times it adheres to the lungs when it is either sound or inflamed - Lungs at times shews no none mark of disease as when suffocated excitement transcends inflamm -
⊙ I have taken upwards of 100 oz of blood in 2 days & have bled 4 times in one day with the very best effects. If not called sooner we may bleed in its latter stage I have bled after the 5' day with advantage - The state of the system alone shd influence us
⊙ The bloodvessels being often more excited on one side than on the other

depressed; the system is then prostrated below the point of reaction. In this case the pulse is raised by V.S. which indicates the necessity of depletion. * 5th A person once having Pneumony is more subject to it afterwards this is by leaving the lungs in a weak state & cold air & Fever always determines to a weak part. × 6th It rarely occurs in countries uniformly cold or warm. In consequence of the uniform Climate of Canada it is seldom there. Pneumony is a symptom of or is induced by Gout, Influenza, Small pox, catarrh, contusions of the breast, gun shot wounds &c. # 7th The remedies are V.S. accomodated to the states of the system. Certain states of the system require the loss of 8 oz of blood while others require from that quantity to 1400 oz. Some authors say it is improper to bleed after the 4th 5th 9th or 11th day but they are mistaken. V.S. is necessary as long as the pulse indicates it. from its tension fullness &c. or as long as there is a Fever (more bleeding is necessary in contusion) than in other cases. ⊙ Bleeding on the affected side is preferable to the other. ⊖ The pulse will require bleeding even after an abscess is formed or broken for which when properly managed it may be considered as a cure

⁂ Pregnant women require more bleeding than those in a different situation – Purges are improper

× Between the shoulders or on the legs & wrists or to the sides

Blisters if applied at a proper time suspend the cough often in one night – Recollect the unity of the skin & that diseases of the bowels are often cured by blisters to the extremities

⊙ The Cough is sometimes constant lasting 25 days without intermission –

⊙ Horse radish tea & Oxymel of Squills & Balsamel are 2 good expectorants. – It ends in Hydrothorax & vomica &c

The 1st 2d & 3d bleeding will seldom be sizy but generally after this it will show itself to be sizy # 2d Laxative medicines, these are especially necessary when the disease is accompanied with bile; Calomel Nuetral salts & Antimony. Blisters to the sides, breast & legs or between the shoulders after the 2 or 3d day, or cuppings are proper if the system be previously reduced. The blisters + may be applied in violent cases before the system is reduced to the blistering point as the stimulating effects to the whole system is counterbalanced by the depletion it creates # Diluting drinks with Seneka & Antimonial pills are proper. also opium in small quantities at first after the system is reduced; as soon as the cough comes on give demulcent drinks such as flaxseed tea, bran tea, barley water, fig tea, apple water &c ⊙ Are expectorants proper? No provided V.S. has been sufficiently used; but when the Arterial System comes to sympathize with the lungs also when V.S. is not performed in due time & obstructions have taken place then may expectorants be used # Emetics are proper when there is much phlegm. they have snatched many persons from the grave, cupping between the shoulders,

* Little blood coming from the Lungs is unfavourable - a Diarrhoa is unfavourable - Dissolved blood on the 5 day is alarming on the 2° not so much so. When the Pain is on the left side it is more dangerous but of a shorter duration. When the pain passes to the arm or back it is favourable but when it descends unfavourable. —

The Tracheal & Bronchial vessels are so engorged with blood that they cannot put on inflammatory action

o. ~~No cough whatever~~ - respiration ~~very difficult~~

*

* & weakly constitutions

16

Even when expectorants have been used V.S. would be proper to facilitate the discharge of the matter, or as Dr Sydenham expresses himself "to draw the cough off by the veins". The proper expectorants are Squills, gum ammoniac & volatile salts. (See next page 410) When delirium occurs about the 5th day it is always an alarming symptom.* The tinct: of Canthar: with Camphor so as to induce stranguary has been given in the last stage of the disease with efficacy. —

Pneumonia Notha. This is known by an increase of previous debility. It occurs in Springs after sickly autumns, & generally in aulden & old people. The Lungs are suffocated or engorged & I have called this engorgement an apoplexy of the lungs, The pulse is soft weak & regular # The Pneumonia notha & vera are sometimes blended together in this case the pulse is tense. — It is common 1st To old debilitated people + 2° To drunkards 3° It is more common in the spring, & in moist than dry climates & in South than North 4th It comes on more frequently in the night 5 It attacks & fixes in one posture. I knew a Gentleman in this City (The Revd Mr Helmuth) to be taken as he

* ~~There are some constitutions wh forbid Vs.~~
~~here Blisters Other Vol. alkali & Land ~~wh~~ l.~~
‡ ~~used~~. Dr Dalzelle tells us that the Negroes in
the W Indies would not bear Vs.

was sitting upon his sofa in a leaning posture upon the palms of his hands & elbows, from which situation he could not raise himself 6th Without a Cough 7th Sweats on the breast & head 8th Sometimes kills in a few hours like apoplexy of the brain (it is the Apoplexy of the Lungs) and sometimes not for days. I once attended a Gentleman in the third attack of this disease who died in 2 hours after the attack, he died in a few months after V.S. ~~Dr Gallizelle says he never knew it among the Negroes of the West Indies their lungs are to weak to react to the state of inflammation~~ 9th It is a symptom of Gout, Pulmonary Consumption Yellow fever & Influenza. Its cure consists in copious & prompt V.S. 20 or 30 oz should be taken at a time from that to 100. In some cases the first V.S. is sufficient but here the pulse should be our guide.* After V.S. blisters to the side, breast, & sometimes Sol: Alkali. The blisters just mentioned should be applied to the shoulders, thighs & arms at the same time, & assisted by sinapisms in great depression. Laudanum should be given in large doses after V.S. Vapours of hot water or the smoke of resin received into the Lungs, they rouse

*Colic & Diarrhoea

the lungs from their torpor & prevent a second congestion taking place in them, hot water to the extremities, water poured on hot iron where the warm water is not readily procured & the vapour inhaled. I once had a patient with a violent attack of this disease his respiration was very difficult, having no hot water or time to wait I immediately poured water on hot iron under his mouth & suffered him to respire it. in a few minutes I asked him how he felt? his reply was that he was a million of times better. We are not always to expect however that these diseases are easily distinguished from each other, for they are often blended.

Bilious Pneumony. In this there are two morbid actions, one in the lungs & bloodvessels & the other in the alimentary canal. It is known by redness of the eyes, sickness vomiting, black tongue, a low pulse &c. 2 By prevailing in epidemics of a bilious kind 3° By prevailing late in autumn & in the Spring months after the prevalence of bilious fevers. There are two forms of this disease the first with a synocha pulse & the 2d with a typhus or typhoid do The remedies for the first are copious & frequent

* twice as much Dr. Bleghorn took 40 or 50 ℥ in 24 hours
# It often begins with a Synocha & ends with a Typhus Pulse & ~~vice~~ Versa. Treacherous remissions or More properly prostrate Paroxysms occur in this form of Pneumonia —
The Synochus & Typhus states in this form of Pneumonia are often so mixed & blended that the indications of cure are with difficulty discovered — a mixed treatment partly stimulating & partly depleting are sometimes to be pursued. —

V.S. much more so than in Pneumonia vera or Notha, there being two actions to subdue instead of one 2° After V.S. the daily exhibition of purges with calomel which should be aided by glysters. 3° Vomits if the stomach be affected with nausea from bile 4° Blisters &c. For the second form in which the system is prostrated below the point of reaction, & a great difficulty of breathing. Quick breath & weakness sweating &c now & then a soap bubble tension in the pulse occur. The remedies are 1° Emetics for free V.S. cannot be used with advantage. 2° Gentle purges or glysters, cupping, after which stimulants as wine, bark, laudanum, bol: salts, snake root &c should be used. I bled a Student once by the name of Craig for this disease in consequence of which he was evidently worse I then used Cordials & cured him. I had another patient whom I injured by V.S. altho his pulse was active I then used the bark, laudanum &c successfully

Catarrh. This arises from Cold & is nearly allied to Influenza It is an atmospheric disease & derived from the sensible qualities of the air; sudden changes from heat to cold & vice versa

* Hence it is rare in Holland –
* It is generally thrown upon the bowels in ~~Autumn~~ & lungs in Winter – when upon the latter in Summer it is far more dangerous

from the operation of these vicissitudes it is most frequent in Great Britain & the United States; it is hardly known in Russia. or Canada —

2d It is induced from the application of cold to one part of the body

3d By cold applied where there is sweat. —

4th Cold when long applied tho' not intense

5th When applied when the body is debilitated. All these causes are attended with obstructed perspiration. —

2d It is induced by the excreted matter which induces Jail Fever

3d The smell of old Books

4th The application of land & sea air combined

5th It is induced by fear distress & vexation. — Cold when intemperance, fatigue uniform tho' combined with moisture will not produce it. This is a singular fact. * Many of the Catarrhs of our country are brought on by sitting in rooms much heated with a current of cold air passing thro' them. After it is formed it is occasionally contagious. It affects the Schneiderian membrane, bronchia & pulmonary arteries. When it affects the first it causes sneezing when the bronchia coughing, & when the pulmonary arteries Abscesses. * It is most dangerous & obstinate in the summer. Children

It rarely affects children and
Adults at the same time

~~Fungus are undescribed~~

as well as adults are affected by Catarrhs - the former in consequence of a more copious effusion in the vital parts & being less able to bear them, often fall victims to it.

Influenza This is often the precursor of Q. Fever & often succeeds it. It affects brutes also savages, in which it differs from Catarrh from Cold which never affects the last. The remedies for Catarrh & Influenza divide themselves into two kinds, namely. 1st Those for the forming state & 2d Those for the state when formed - The remedies for the forming state are Pediluvium, Abstinence, apple water, wine whey, vinegar & molasses diluting drinks. Mr Garrick used to eat a salt herring for this disease, this caused him to drink a great quantity of water which cured him in 24 hours. When the disease is formed the remedies are V.S. according to the state of the pulse from one to 20 times if necessary. There are cases where not only a tense but a soft pulse calls loudly for the lancet. The bleeding not only cures the disease but prevents pulmonary Consumption. A Catarrh from cold should never be neglected 2d Purges when there is

+ It is nothing but a ~~Pneumonia in the Chro-~~
nic form
* Such as from Wounds Mal Conformation Ca
tarrh Pneumony Measles Asthma
Such as fevers of all Kinds Gout Venereal
disease

an excess of bile. 3° Emetics 4 Demulcent drinks & lastly Opiates &c. These diseases as being one of the causes of Pulmonary Consumption should not be neglected, they often prove fatal to old people & those of debilitated habits. What worse would we have than a Cold; for death is nothing more than a very great cold. In order to prevent these diseases flannel should be worn next the skin & the head feet & neck should be kept warm. Cold bath exercise &c are good; or rather labour in the open air

Pulmonary Consumption or Pneumonicula. —

I shall here briefly sum up all I have to say on Pneumonicula in a very few words. The remote causes of this disease act 1st Primarily on the Lungs* 2° Secondarily# 3° Sympathetically as diseases of other parts of the body, as, the Lungs Uterus Liver &c

It is nothing more than a protracted or chronic Pneumony as other chronic diseases. — It is first, always preceded by debility. 2° This debility prevades the whole system, this is proved from all the causes which induce

* from cough Pain Watchfulness & expectoration

A cough must bring on general debil
ity, before it induces consumption, not
from any violence done to the lungs —

it (refer to my Inquiries). when the lungs are affected it is only in consequence of general debility.* This I infer from 1st The Lungs being a hardy viscus not producing consumption when even perforated by a ball or other local injuries 2d Those subject to the consumption are of a debilitated habit or sedentary d.o &c 3d I infer debility from the symptoms appearing first in the whole system, such as wakefulness. head ache, diarrhoa, cold feet, weak appetite burning in the hands &c these symptoms sometimes continue years without a cough. 4th From its alternating with diseases of the whole system, as Rheumatism. Mania, Head ache &c which are diseases of the system This disease exists in the bloodvessels, the effects of it are 1st It excites cough 2d Hemoptysis without cough; this last is a favourable symptom in the early stage, the blood is discharged without a tubercle which shews a general disease. The lungs are affected in consequence of fever, this fever produces an abscess (if there is no discharge) in the bloodvessels, in the bronchia & forms tubercles. — There are a few cases in which hydatids & even small calculi are formed, sometimes there is no tubercle formed &

only a defluxion. Why do the bloodvessels empty themselves into the lungs? Because of the laxity of their texture disposing them to receive morbid action, their continued exposure to cold & their being kept in a state of predisposed debility by talking &c. Sometimes the fever falls upon the trachea producing homorrhagy catarrh ulcer or serous defluxion abscess &c in this case I call it tracheal consumption which is known by a constant cough & black coloured expectoration. The cough is much more constant & the defluxion of mucous black. Some persons sometimes have this defluxion for 20, 30, 40, 50, & even 60 years without falling into consumption. Here the debility is partial & consumption cannot be produced without general debility. This I consider as a true theory. It is not only in consumption that the effects have been mistaken for the cause, but in other diseases we do not now ascribe the water in the head to hydrocephalus. Water in the brain & membrane in the trachea have been erroneously supposed to be the causes of hydrocephalus & Cynanche Trachealis. It is high time Gentlemen to harness the horses before the Chariot of Medicine instead of behind it; it is time to ascribe effects

*. I have seen A follow Perlupis

to causes & not causes to effects. The earth in our science has stood still sufficiently long - The Pulmonary consumption has sometimes assumed an intermediate form between it and the Pneumonia; in this case it sometimes kills in 6 weeks & is called a Galloping Consumption, but it more frequently continues 9 12 & 18 Months. I had it frequently between the 18th & 40th years of my age. It generally attacks under the age of 36 from that to 40 & 45 & rarely at 60. * children are not subject to it. * Black eyed & red haired people are more subject to it also such as have irritable habits & vibratile bloodvessels. The predisposition to consumption is hereditary but often a family disease & often exists in whole families even where no hereditary predisposition exists. Dr Craig has lost 5 children in this way & himself & wife are exempt. In the town of Salem 1/3 of all that died in 12 Months died of Consumption. From 1/2 to 1/4 of all who die in G. Britain die of this disease. Those who have had the intermittent fever are more predisposed to it than others. Moist & variable climates & Countries predispose to it especially near the

* Inflammatory Hectic & Typhus states it
May be

* Hoarseness Cough - Flushings or Paleness in
the face Burning Sensation in the Palms of
the hands - The Tongue is alway Moist

sea shore where many more of the inhabitants die. The Month of March in our Climate is more fatal to consumptive patients from the variable temperature generally prevalent at that time. Diseases near the sea shore or in moist climates require the lancet much more than those in inland or dry countries. Moisture alone is not sufficient to induce this disease - This I infer from its being scarcely known in Holland & Cold or very hot climates never produce it but they are unfavourable to it when formed. Few have recovered who have went from Philadelphia to the West Indies in this disease. Dr Blane says a temperature from 30 to 40 is best for consumptive patients. Authors divide it into first second & third stages. I have seen it in all its states even until it preceded death. -

1st Without a Chill - 2d Without a Chill fever or Night sweats - 3 Without Cough or expectoration - 2 cases of this I have seen - I have seen two fatal cases of this - the one complained of a pain in his side and inability to speak from pain only, & the other in the head. It seems unnecessary to produce fever that the air should have access to the pues 4th 11th Pulmonary

*: 2° Lymphatic concretions as in the Trachea in Cynanche Trachealis

3° Tubercles formed suddenly as in other parts of the body

4° One or more superficial ulcers — These are *

5 Pus in the Cavity of the Thorax

Stomach Heart & Arteries

* always more dangerous than abscesses, as they are apt to become cancerous

Consumption has been said to be contagious from sleeping &c with persons affected with it. & is believed to be so in Portugal & Spain where the bed & clothes &c of the persons who die with it are burnt. It may be and is from inhaling the breath of those who have it, from being exposed to their sweats & from sleeping with them — & also from excretions

The following appearances shew themselves on dissection — 1st No appearance of disease at all from the effusions of the Bronchia being discharged in Mucus * 6th Water in the Thorax & Lungs — 7 Abscesses 8 Chalky concretions & silecous & gravelly D. 9 Ossifications of the arteries of the Lungs — 10 Certain substances inhaled have been found there after death 11th preternatural increase of the size & weight, lightness hardness & lastly but one lobe has been found, besides these appearances the liver # &c have been found diseased. A Cough often continues for years with spitting of Blood, where no fever is, it does not kill. — The remedies for it are of two kinds, namely, 1st Those for the forming state & 2d Those for the disease when formed. The symptoms

*: No regard is to be paid to the apparent weakness of the Patient - women who suckle children oh^d stop directly —

+ The tongue is always moist

in the forming state are of 2 Kinds - burning hands & feet. frequent discharge of pale urine Hoarseness Cough, flushings or paleness in the skin & sense of weakness in the heart, a weak frequent & sometimes tense pulse - other premonitory symptoms are, a sense of fulness in the breast with a Synocha or Synochula pulse, difficulty of breathing transient pain in the breast &c. I have seen these causes sometimes continue for 8 months without inducing it. — For the forming state the remedies are 1st V.S. if the pulse be active as the debility is generally of the indirect kind* 2° Tonics such as Bark Steel, Wine, &c with tonic diet & salt meat 3° Exercise: such as riding on horseback, carriage &c 4° Cold Bath. 5 avoiding all exciting causes. By observing the premonitory symptoms I have prevented many hundred consumptions. When formed it is attended with Synocha, synochoid & sometimes, Hectic & typhus pulse. The remedies here are such as are suited to the state of the system, changes of the pulse &c I have known the pulse to run thro' all its different states in a short time in this disease. I have known an active pulse & sizy blood even until just before death. If it be Synocha or Synochula V.S. is necessary, it should be small & frequent, it has been performed 130 times with success-

* Recollect the Sympathy between the Stomach & the Trachea a spitting of blood does not forbid the use of Emetics —

Salivation acts by a revulsive power & by destroying obstructions particularly in the Spleen

⊙ Milk

Dr. Griffiths bled a young Lady in this City as often as the above it was taken in a small quantity at a time and repeatedly. 2° A vegetable diet with salted meat or fish; Milk is generally improper in this stage unless diluted ⊙ not more than a pint of liquid diet should be taken daily in this state of the disease. 3° Nitre every day this acts by transferring action from the bloodvessels to the bowels. 4th Blisters to the sides & wrists, I would however prefer them to the back; if to the arms they should be high up on the joints, especially if it arises from secondary causes as from Gout & Rheumatism. 5 Emetics after the system is reduced*; these are more particularly useful when it proceeds from a cold & 6th a Salivation; the predisposing debility which is not removed by this, should be obviated by tonics. Salivation is our only & most radical cure. 9 out of 10 who were salivated in recent cases recovered. This remedy in this stage is generally a radical one. In spitting of blood it should not be forbidden but should rather be thought as a symptom arguing its exhibition. In the second stage 2 in 3 & in the 3d & last stage 1 in 10 who were salivated were radically cured. Blisters & mercury with an antimonial powder are frequently used. It is

*: Remember they are not to be given till the very last stage —

to be regretted that mercury fails so often in producing a salivation, it fails oftener than it succeeds. In the Hectic state salivation promises more good than in the Typhus state. but it promises still more good in the Typhoid state of the pulse. In the Typhus state, Opium is the best sometimes cures, perhaps when it does this, it acts by its revulsive action on the brain Mania being induced has cured it - garlic, tar pills, tar in different forms, tobacco, cordial drinks, the most nourishing diet & cordial & animal food &c. I will remark here that 1st These cordials should be used only in the Typhus & consequently in the last stage of this disease. 2° Only when they render the pulse fuller & slower 3° Should be taken all day & night 4th that animal food is preferable to the Bark. When the acute forms are reduced, travelling swinging riding on horse back, rowing &c are proper. In travelling regard must be had to the vehicle beginning with a carriage & then on horse back. & also the climate & country; the sea shore should be avoided. Issues (as curing the consumption;) these may frequently do good but I have known only one case completely cured by them; I prefer the perpetual blister to them. Digitalis - this is said to lower the

pulse & consequently to increase absorption; I must however observe here that I have only seen one instance in which this was of service. I believe that more good may be done by it in the South than in Pennsylvania & its effects are somewhat similar to Opium; it is given in tense pulse, in this case its operation is slow & consequently v. g. being of a more powerful nature is vastly preferable — 2° eating plentifully of sweet grapes has cured consumption. 3° I once saw a cure from Malaga grapes. 4° Large draughts of the juice of the sugar tree & sweet apples, or the tea of them. 4° 5 Fumigations by burning resinous substances, burning narcotic substances such as henbane, hemlock &c & receiving the fumes into the Lungs have been said to be of service 5° 6° Reduced air. Dr Priestley's daughter was cured of a consumption by breathing the air of the same room in which a cow lived. Dr Beddoes says this was not from reduced air but from the equal temperature kept up by the Cow 6° 7° Frictions have been used they are more useful when combined with some stimulating substance; The sympathy between the lungs & skin is of an inverse nature, consequently clothing should be warm & particularly to the extremities.

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